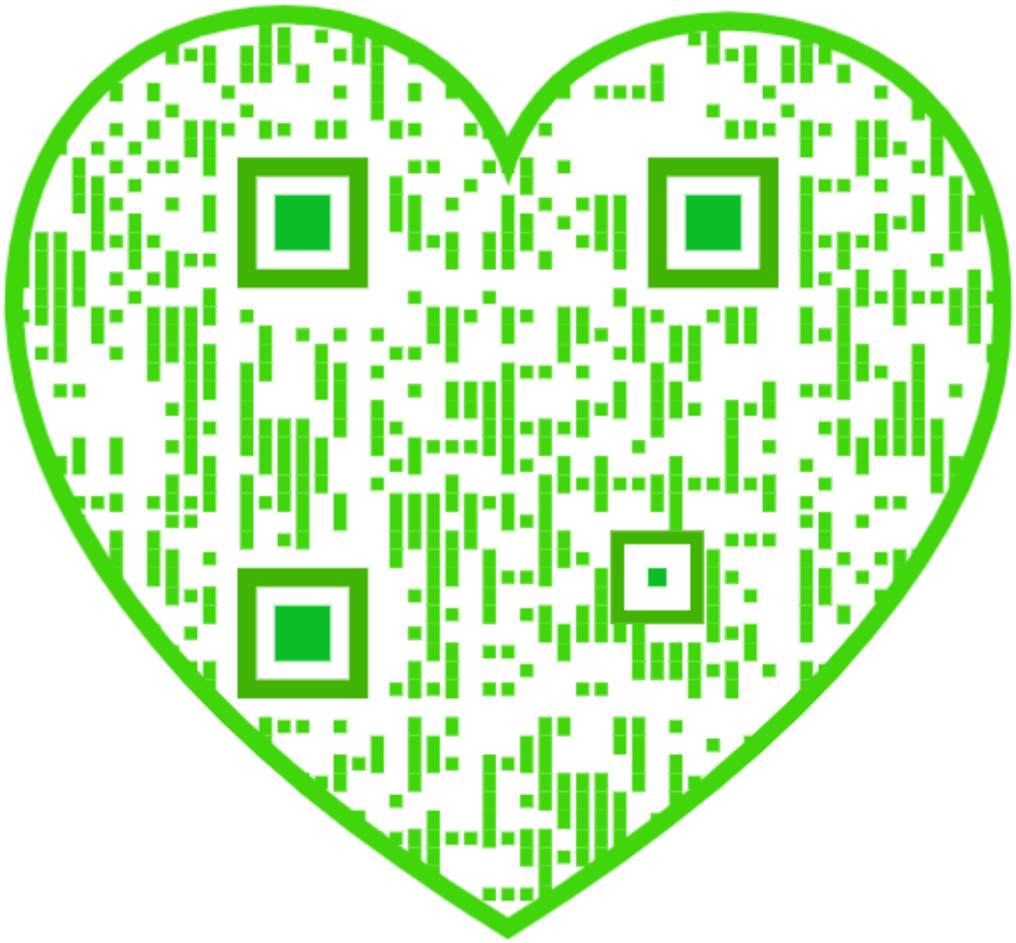
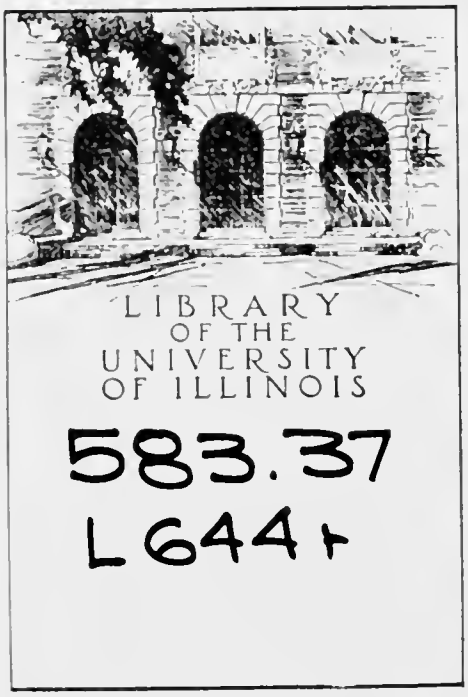
INTELLECTUAL
AUGUSTISSIMA
POSSESSIO





LIBRARY
OF THE
UNIVERSITY
OF ILLINOIS

583.37
L644r

MAR 6 19[illegible]

NATURAL

Digitized by the Internet Archive
in 2010 with funding from
University of Illinois Urbana-Champaign

http://www.archive.org/details/rosarummonograph01lind

ROSARUM MONOGRAPHIA;

OR,

A Botanical History

OF

ROSES.

TO WHICH IS ADDED,

An Appendix,

FOR THE USE OF CULTIVATORS,

IN WHICH THE MOST REMARKABLE GARDEN VARIETIES ARE SYSTEMATICALLY ARRANGED.

WITH NINETEEN PLATES.

BY JOHN LINDLEY, F. L. S.

E guadagnar, se si potra, quel dono,
Che stato detto n'è, che Rose sono. — BERNI.

London:
PRINTED FOR JAMES RIDGWAY, 169, PICCADILLY.
1820.

TO

CHARLES LYELL, ESQ.

OF KINNORDY, NORTH BRITAIN,

THE FOLLOWING

MONOGRAPH OF ROSES,

WHICH IS MUCH INDEBTED TO HIS LIBERALITY

AND

TO HIS INTIMATE KNOWLEDGE OF THE GENUS,

IS INSCRIBED,

WITH SINCERE ESTEEM,

BY

HIS MUCH OBLIGED

AND

VERY GRATEFUL FRIEND,

THE AUTHOR.

PREFACE.

It is necessary, before I enter upon the immediate subject of the following pages, to give some explanation of the reasons which have induced me to intrude upon the attention of the public. Not because every one does so, but because a fresh attempt to accomplish what has repeatedly and recently failed in the hands of far more experienced botanists than myself, would without it appear, to say the least of it, presumptuous.

Although the number of publications on the present subject is already too considerable, and their authors, in many instances, men of established reputation; yet nothing is more notorious than the almost inextricable confusion in which Roses are to this day involved. This however may perhaps be in some measure explained by a careful examination of the principal works, and of the circumstances under which they have been severally composed.

Some of them are mere masses of figures, and those frequently not of the best kind, without any scientific pretensions, either to arrangement, or correctness of delineation. In other

instances the examination of species has been partial, comprehending such only as are found in certain districts; the consideration of foreign Roses being altogether omitted. I may also venture to assert that whenever the study of extra European Roses has been combined with that of those peculiar to our own quarter of the globe, the ideas of their discriminative characters have never resulted from an intimate knowledge of the genus in a living state. On the contrary, incomplete notions have been formed of it from dried specimens only, which, in the present instance, are far from being of their ordinary importance. To this, in some measure, is to be attributed a disposition to increase the number of species beyond their natural limits, which has been no unfruitful source of error and confusion. The necessity then of a Monograph of Roses not composed under these disadvantages will scarcely be disputed.

A considerable private collection of living plants has occupied my attention for several years; and if to this be added the unlimited access to every thing in this country, at all connected with my design, which I am proud to say, has been conceded to me on every side in the most gratifying manner, my materials may fairly be considered to deserve some attention, if not the manner in which they have been employed.

The plan I have pursued is too obvious to re-

quire much explanation. As the synonymy is one of the most difficult and perhaps important parts of the subject, it has of course received particular attention. But I have rarely been very anxious about the synonyms of botanists of an earlier date than the time of Linnæus, on account of the extreme uncertainty of the precise plants which they intended. The work might have been extended to a much greater length, had I not aimed at avoiding to repeat what has been previously said by others, except so far as was necessary to make myself intelligible. In marks and abbreviations the plan laid down by M. De Candolle, in his excellent *Regni vegetabilis systema naturale* has been my guide, but with some slight deviations.

To the noble library and inexhaustible Botanical treasures of the Right Honourable Sir Joseph Banks, with that unexampled liberality for which their illustrious possessor has been ever celebrated, I have been allowed the freest access. To these I am almost entirely indebted for the numerous and highly interesting species, either altogether new, or hitherto imperfectly known, from the hotter countries of Asia, Africa, and North America. The authentic specimens preserved there from *Jacquin*, *Pallas*, and others, with those of the *Hortus Kewensis*, have enabled me to determine many of their synonyms with precision. To the kindness of Aylmer Bourke

Lambert, Esq. I am particularly indebted for the liberty of examining his fine collection, containing, among other rarities, all that remains of *Pallas*'s Roses, specimens from Colonel Hardwicke of the Attar tree of Ghizapore; fruit of *R. multiflora*, and flowers of *R. hystrix*, all which are in no other herbarium in this country. The materials which have resulted from the experience of twenty years' perpetual observation of the most extensive collection of cultivated Roses in the world, have been submitted to my examination by Mr. Sabine their liberal proprietor. To Mr. Lyell, whose knowledge of the subject is only equalled by the readiness with which it is communicated, I am under the most extensive obligations. Nor must I omit to acknowledge the material assistance I have received from my friend Mr. Hooker, now Regius Professor of Botany in the university of Glasgow, whose Roses collected with the greatest care in Ireland, Switzerland and the South of France, with those of his numerous correspondents, have been placed in my hands. By them many doubtful synonyms of continental botanists have been ascertained. By the learned President of the Linnæan society I have been allowed to examine the important herbarium of *Linnæus*, and his own, which is not less valuable. A multitude of other communications, too numerous to be acknowledged individually, are noticed in their proper places.

With this mass of matter before me I have naturally felt strongly interested in making the attempt which is now produced. If I have in some measure succeeded I shall have the satisfaction of knowing that the way for whomsoever may succeed me will be less impassable; if I have not, I am ready to throw myself on the indulgence of those who are best aware of the difficulty of the subject.

London,
March 31st, 1820.

INTRODUCTION.

A GENUS more remarkable than the Rose could scarcely have been selected for illustration from the whole vegetable kingdom: on account of the lively interest its beauty has excited in the minds of mankind from the earliest ages of the world. To poets it is a mine which all their ingenuity has been insufficient to exhaust. Volumes have been written upon its efficacy in Medicine; and one of the most earnest defenders of its powers has not hesitated to assure the world that the Pharmacopœia should be formed of Roses alone. It would be equally needless and tedious to mention all the stories which have been told about them; or all the customs to which they have given rise. But it would scarcely be judicious to pass these things over without any sort of notice.

As the emblem of youth, the Rose was dedicated to Aurora; of love and beauty, to Venus; of danger and fugacity, to Cupid. It was given by the latter as a bribe to Harpocrates the god of silence; whence perhaps originated the custom, of which we are told by Rosenbergius, that obtained among the northern nations of Europe, of suspending a Rose from the ceiling, over the upper end of their tables, when it was intended that what passed at their entertainments should be secret. And this undoubtedly is the origin of the com-

mon expression, " Under the Rose." The ancients tell us that Roses originally were white; but were changed to red by the blood of Venus, when her feet were lacerated by their prickles in her attempt to protect Adonis from the rage of Mars. Theocritus and Bion however are of opinion that it was the blood of Adonis himself that altered their colour. Another tale relates that Cupid leading a dance in Heaven stumbled and overset a bowl of nectar, which falling upon the earth stained the Rose. Ausonius has made the Rose blush from the blood of Cupid *(Tighe.* 47.) Busbequius informs us that the Turks have a similar superstition upon the subject, and believe that Roses originated from the sweat of their prophet Mahomet. Nor has the ingenuity of monkish writers been at a loss to stamp Roses in some measure with divinity, though in a different manner. Marulus tells a story of an holy virgin named Dorothea, who suffered martyrdom in Cæsarea, under the government of Fabricius; and who converted to Christianity a scribe named Theophilus, by sending him some Roses in the winter time out of Paradise. A golden Rose was considered so honourable a present, that none but crowned heads were thought worthy either to give or to receive it. Roses of this kind were sometimes consecrated by the Popes upon Good Friday, and given to such potentates as it was their particular interest or wish to load with favours; the flower itself being an emblem of the mortality of the body, and the metal of which it was composed of the immortality of the soul. Boëthius says that William King of Scotland received a present of this sort from Pope Alexander the third. And Henry the eighth is recorded to have had a similar gift from Alexander

the sixth. The seal of the famous Luther, which is well known to have been a Rose, may have been symbolical of the same things as the golden presents of the Popes. Roses were employed by the Roman emperors as a means of conferring honours upon their most famous generals, whom they allowed to add a Rose to the ornaments of their shields; a custom which continued long after the Roman empire had ceased to exist, and the vestiges of which may yet be traced in the armorial bearings of many of the ancient noble families of Europe.

As objects of cultivation they have always been eagerly sought after; and for the purpose of increasing their beauty, every means of causing the flowers to become double has been put in practice. Hence, in process of time, has sprung the multitude of individuals now in every garden, whose beauty is only equalled by the extreme difficulty of tracing them to their original stock. But it is a mistake to suppose that double Roses are of somewhat modern origin; since they are particularly mentioned by Herodotus, Athenæus, and Theophrastus; and more especially by Pliny, who enumerates several sorts, among which is a *centifolia*. It is remarkable that the latter should not mention the Rose of Pæstum, nor any growing in that neighbourhood. This omission makes it impossible even to guess at what was meant by the "biferi Rosaria Pæsti." The only Rose Mr. Woods found about Pæstum was *R. sempervirens*.

The name Rose is derived by De Theis from the Celtic *rhodd* or *rhudd*, signifying red, whence, he thinks, have originated the synonimous names *rhos* in Armorican, ῥοδον in Greek, and *rosha* in Sclavonian.

It is the only genus of Jussieu's second section of Rosaceæ, and is distinguished from the succeeding sections of that order, by its fleshy urceolate calyx, and hairy, osseous pericarpia. From Pomaceæ there is no absolute mark of distinction, except its solitary suspended ovulum, and indefinite ovaria; for, however sufficient the distinction may at first sight appear, between the *fructus inferus* of the latter and *superus* of Rosaceæ, it is almost entirely removed by *Cratægus glabra* and *arbutifolia;* which differ essentially from the genus to which they have been referred, in having *ovarium semisuperum* and in the ripe fruit the pericarpium almost entirely superior. With some unpublished species these form a very distinct genus which I have called *Photinia.*

Our knowledge of European Roses has become, by the extraordinary attention they have received, so extensive that it is impossible to doubt that limits between what are called species do not exist. This was strongly suspected by Linnæus when he said, " Species limitibus difficillime circumscribuntur, et forte Natura non eos posuit," but he had no means of satisfying himself. Gerard and others have asserted it; although Haller and most succeeding botanists have disputed the truth of the opinion. A partial, but satisfactory illustration of it may be given, without extending the examination so far as to show every link which unites the European species with each other. *R. canina* and *spinosissima* may be considered to exhibit the extreme differences in structure and appearance. Let us begin with *spinosissima.* This is united with *rubella* through the variety *melanocarpa* of the latter. Its variety *pilosa* connects it with *R. involuta,* which in a more vi-

gorous state becomes *R. Doniana* of Woods, which is the intermediate state between it and *Sabini*. This passes into *villosa* through *R. gracilis* of Woods. By a partial return to its original appearance, that is to say, by again losing its hairs, but retaining its glands, *R. involuta* becomes *R. myriacantha*. Another branch from *spinosissima* is through *rubella* which passes into *alpina* by the dwarf alpine variety of the latter. A vigorous sort of *spinosissima* in two or three generations might produce *R. hibernica*, and this may be traced into *Sabini* without much difficulty. From *R. Sabini* having lost its setæ proceeds *R. tomentosa*, whose variety *mollis* brings them together; and we are acquainted with every gradation from *tomentosa* to *canina*.

Before we proceed to consider how far these circumstances may be allowed to affect the arrangement of the genus, it may be worth while to consider what is, or ought to be, understood by a species. Cuvier tells us it is "the union of individuals descended from each other, or from common parents, and of those which resemble them as much as they resemble each other." *(Regne Animal* 1. 19.) De Candolle defines a species to be "the assemblage of all the individuals which resemble each other more than they resemble others; which can, by reciprocal fœcundation, produce fertile individuals; and which reproduce themselves, by generation, in such a manner that they may all by analogy be supposed to have descended originally from a single individual." *(Theorie ed.* 2. 193.) Now if these definitions, which are purely hypothetical, be the test by which a species is to be tried before it is admitted as such, it results, from the illustrations I have

given, that all the European portion of the genus must be huddled together under one specific title; a measure, the absurdity of which is sufficiently obvious, because to adopt it would be only disputing about terms, since it would then be necessary to distinguish certain modifications; and it is immaterial whether these be termed species or varieties. For why do we distinguish species among genera? except as the means of giving precision to our ideas, and consequently correctness to our language; by indicating certain modifications of structure considered to be of inferior importance to those which distinguish genera, and whose supposed limits are defined by what is called a specific character. By species then I wish to be understood here to mean, an assemblage of individuals, differing in particular respects from the rest of the genus, but having more points of affinity among themselves than with others; their union being therefore natural.

But if, as I have attempted to show, there are no limits to the species, it is impossible to give them rigorous definitions; and with a firm conviction of the truth of this, have I set about a revision of the genus. Upon these principles I have proceeded throughout.

On commencing an examination of the causes whence so much confusion has arisen, I was presently assured that no inconsiderable part of the difficulty might be removed by ceasing to insist on the trifling distinctions upon which a number of botanists have recently established their species. For it is evident that where only a few tolerably tangible characters are to be obtained, no course is so certain to destroy their importance as that of frittering them away till they become confounded with one another. Nor is it suffi-

cient to constitute a species, that it can be distinguished, perhaps readily, by the experienced eye of a cultivator, from all other Roses; for if this were the case, most of the numerous varieties of the Apple, the Pear and the Plum which the practised gardener finds no difficulty in recognising, would have an equally just claim to specific distinction. A second source of confusion originated with Linnæus himself, when he divided the species into two divisions, distinguishing them by their ovate and round fruit. A more variable character than this could scarcely have been fixed upon, and yet it has been adopted with a few exceptions, by the greater part of his followers. In some instances attempts have been made to alter this arrangement; but as the plans proposed instead have been scarcely better than Linnæus's, they have met with little attention. So that in the most recent complete account of the genus which has hitherto appeared, from the pen of Sir James Smith in Rees's Cyclopædia, the old mode of division is adhered to.

Mr. Woods was the first who effectually broke through the prejudices in favour of this; and in an excellent memoir on the Roses of Great Britain, arranged and defined them according to a method of his own. However much we may be at variance about the limits of species, there can be little or no difference of opinion between us respecting his primary divisions, because they are natural. Many important characters were first noticed by him; among which the distinction between setæ and prickles more particularly deserves to be noticed. It is with pleasure that I acknowledge the advantages I have derived from this method. And to show the great importance I attach

to it, I have taken it as the basis of my own. It is true that the additions and alterations I have found it necessary to make, have been considerable, but they are such as Mr. Woods himself would probably have resorted to, had exotic specimens entered into his plan. His divisions however are confessedly made without reference to any but British Roses, and so far his arrangement is defective. In 1816, a year after Mr. Woods's paper was read before the Linnæan society, Dr. Ambrosio Rau published his "Enumeration of the Roses growing about Wurtzburg," arranged according to a new method. The remarks attached to the species are useful and accurate, but the manner in which they are disposed is defective. It however deserves attention for the care which the subject has evidently received from the author. These two are the only attempts to form a new arrangement of Roses which it is necessary to notice. In both, the species are too much multiplied, and consequently their characters are sometimes unsatisfactory.

In the following disposition one of my principal objects has been to make it natural. To effect this it was necessary to become acquainted with all the species, and then to submit them individually to careful analysis; which enabled me to ascertain how far general external resemblance and structure go together. Of such characters which combined the species best, I selected the most remarkable. Whether this has been done with judgment it is for others to decide. I may however take the opportunity of expressing my conviction that no one can understand Roses, unless well acquainted with them in a living state. That this inconvenience, which is undoubtedly great, may be in some

measure obviated, I propose to offer a series of observations on the respective permanence or disposition to vary, of the modifications of each particular organ.

The *habit* of Roses, although not often of moment, may sometimes be employed with advantage, when its differences are caused by the manner in which the rootshoots grow. Their being bent like a bow distinguishes *Caninæ* and *Rubiginosæ* from *Villosæ;* in which they are quite erect. The flagelliform shoots of *arvensis* prevent its being confounded with *systyla;* and their being climbing separates *sempervirens* from *prostrata.* Yet *cinnamomea* contains two plants, of which one has straight and the other curved rootshoots; and the same remark is applicable to *tomentosa.*

I have found it necessary to make a distinction between *branches* and *branchlets,* understanding by the latter term the lateral shoots which are produced in the same season as those from which they spring. Thus *R. lutescens* is readily known from *spinosissima* by the dense prickles of its branches, and the mere roughness of its branchlets. In *R. laxa* the latter are unarmed; in *lucida,* furnished with infrastipulary prickles. *R. rubella* is armed as far as its extremities; in the most nearly allied species, *R. stricta,* the branchlets are almost naked. *R. hystrix* has the latter covered all over with little rigid setæ, while its branches are absolutely free from them.

Arms is a term used to express the presence of *setæ* and *prickles* mixed indiscriminately.

Setæ are little straight aculei tipped with a gland. They are known from real glands by their rigidity, greater length and tendency to pass into prickles. They exist at some period I believe in all species upon

the rootshoots, where they are quickly changed into aculei by losing their gland. In general they are deciduous after the first year. On their presence on the branches depend some of my most natural divisions. *Spinosissimæ* are divided from *Caninæ* by that character among others. *Turbinata* is essentially different from its nearest allies in the want of them. *R. hystrix* is easily known from the rest of its division by their presence on its branchlets. They cause nevertheless some unaccountable anomalies. *R. canina* produces them now and then, in a division where they are not otherwise found. Such a disposition also exists in *R. arvensis hybrida*; nor is *R. rubiginosa* by any means free from them. These however ought to be considered unimportant exceptions, which cannot materially affect the general utility of setæ in characterizing species. It is remarkable that an organ, which on the branches is of so much value, should be of all others the most variable on the fruit and peduncle. *R. rubiginosa* and *tomentosa* produce setigerous and naked fruit; in some instances indiscriminately on the same bush. *R. canina* is not unfrequently furnished with setæ on its peduncle, rarely on the fruit. *Spinosissima, carolina* and others, are equally disposed to vary with setigerous and naked flowerstalks and calyx. Yet there are species which are not subject to such inconstancy in the surface of their fruit. For instance *R. involuta, Sabini, villosa, lævigata, sinica,* &c. have never been seen without setigerous heps.

By the form of the *prickles Caninæ* are tolerably distinguished from *Villosæ;* and their inequality divides *Rubiginosæ* from the former. Their presence or absence on the petioles is much too variable to be em-

ployed at any time. Where their situation is infrastipulary, as in the greater part of *Cinnamomeæ*, they present an important character: but one of which we can judge only from a living plant; because most species with scattered prickles occasionally produce specimens in which they are placed beneath the stipulæ. The fruit of a few kinds is prickly and as it seems constantly so.

Glands, which are perhaps better distinguished from setæ by their scent than any thing else, are for the most part attached to the leaves on the under surface. They are employed to divide *Rubiginosæ* from *Caninæ*, *myriacantha* from *spinosissima*; and, among other things, *Brunonii* from *moschata*. *R. pulverulenta* is the only Rose having them on the upper surface of the leaves. The curious substance known by the name of moss, which makes its appearance on *centifolia* and *rubiginosa*, may be considered glands under another form.

Pubescence on the branches, peduncles, or tube of the calyx is the only invariable character I have discovered in Roses. Distinctions drawn from it I have every reason to consider absolute. It is either persistent or deciduous. When persistent it becomes an important criterion of a section, and characterizes *Simplicifolia*, *Feroces*, and *Bracteatæ*; the two latter divisions being formed by its absence from the fruit of the former. When it is deciduous it becomes of specific importance only; in that state it distinguishes *R. abyssinica* from *sempervirens*, *glutinosa* from *rubiginosa*, and contributes to the separation of *microcarpa* from *Banksiæ*. Just the reverse is the case with pubescence upon the leaves. There it is usually of no consequence

whatever. It is true that in some instances I have continued to employ it; but rarely otherwise than as a secondary character. Under any circumstances it is to be suspected. I have seen *canina* with hairy and smooth leaves on the same plant. In that species and *tomentosa* there is every gradation from perfect nudity to the most dense pubescence. *R. carolina* has hairy or smooth leaves; so have *spinosissima*, *semperflorens*, *arvensis* and many others. Yet I never met with hairy leaves on *R. fraxinifolia* nor naked ones on *cinnamomea*.

The *Stipulæ* proceed from each side of the petiole at its base, to which they always have some degree of adherence. Certain species, such as *bracteata* and *involucrata*, and even *canina* occasionally, explain the nature of these appendages by producing them in the form of leaves, differing from the one to which they are attached only in being smaller and less perfect. Their modifications are not numerous, but when occurring, extremely important. The section *Banksianæ* is chiefly characterized by their being subulate, nearly distinct from the petiole, and deciduous, as in Peaches and Nectarines. The pectinate stipules of *multiflora* neatly distinguish it from those in its vicinity. They are narrow in *majalis;* broad in *cinnamomea;* flat and waved in *lucida;* convolute in *carolina* and *Woodsii;* with a continuous direction in *spinosissima*, &c.; suddenly divaricate at the end in *sulphurea*. In *berberifolia* they become confluent to the exclusion of the leaves, and, their function being altered, assume a much more firm and rigid texture than is usual.

Leaves are always pinnate. Their density may sometimes be employed; as in *sempervirens*, which

may be known from *arvensis* by that distinction among others. Their colour deserves attention if not owing to pubescence. The glaucous hue of *rubrifolia* contributes to distinguish it from *canina*, and *laxa* from *lucida*. The shape of the leaflets, unless remarkable, can rarely be employed; ovate varies to oval; and orbicular to ovate; lanceolate and retuse are the most constant forms under which the leaflets appear. The latter shape would alone be sufficient to separate *sericea* from the species near which it stands. Concavity is unimportant in most instances. Yet it is a remarkable feature in *R. lutea*, whose leaflets are hollowed like the bowl of a spoon, and confirms the affinity of that species to *rubiginosa*, in which the same peculiarity exists. The rugosity of the leaflets will frequently furnish good specific characters. It distinguishes *Villosæ* from *Caninæ*, *acicularis* from the rest of its division, and *cinnamomea* from *majalis*. The shining leaflets of *ferox* are very unlike the opaque ones of *kamchatica*. Single and double serratures can only be made use of under particular circumstances. Generally they are as variable as any thing; there are states of *canina* which would puzzle the most practised eye to decide whether the leaflets were simply or doubly serrated. *Myriacantha* is asserted by Mr. Woods to have double serratures: in all my specimens they are simple. A plant of that variety of *rubiginosa* which Mr. Woods has called *Borreri*, one year produced all its leaves with simple serratures; and the next with compound ones. Yet I believe the double serratures of *involuta* will prevent its being mistaken for *spinosissima*.

The *inflorescence* varies in different species from the most simple to the most compound form. It however

appears to be universally increased upon one plan. In some sections the flowers are solitary, as in *Pimpinellifoliæ*, and may be known to be so by the absence of bracteæ, which are not produced till the flowers are increased in number. When therefore these are present, the flower, if apparently solitary, will be found to have become so by the abortion of other lateral flowers. The first approach to composition is by a flower with a bractea at its base being produced on each side the primordial one. When the inflorescence is again increased it is by a similar addition of flowers on each side of the secondary ones; so that those which were lateral with respect to the primordial flower, become central as regards those which spring from themselves; and so on. The inflorescence then must always be considered to begin where the first central flower, which blows the earliest and has the shortest stalk, appears; and therefore all ramifications without it, however aphyllous they may be, must be considered as branchlets. Let, for instance, *moschata* be examined in its most compound state. The mass of ramifications is found to consist of alternate ramuli, usually furnished with a leaf at their axillæ. Each of these throws forth other alternate branchlets; the infra-axillary leaf being perhaps reduced to a single pinna. These last are again subdivided into fresh branchlets; and if this be the ultimate stage of composition, as it usually is, each branchlet is terminated by an ebracteate flower; and there inflorescence must be considered to commence. The primordial flower, as it expands the earliest, is probably the most perfect; and should therefore be examined to ascertain the number of ovaria, which although tolerably constant in it, are by no means so in

such flowers as are lateral; so that care must be taken not to confound the latter when accidentally solitary in bracteated species with the naturally central flower.

Distinctions drawn from the shape of the *tube of the calyx* can in no instance be employed. All varieties of form may be found in *canina* and *tomentosa*.

The shape of the *sepals* may sometimes be considered, but very rarely their degree of division. In *bracteata* they are broad and short with a point. *Arvensis* has them less elongated than they ordinarily are. Their persistence however must always be attended to. It distinguishes *Woodsii* in some measure from *carolina*; characterizes all the *Pimpinellifoliæ*; and affords the principal diagnosis of *Villosæ* and *Caninæ*. Their reflection contributes to divide *damascena* from *centifolia*, and *alba* from some others. Their elongation is a principal feature in *rubrifolia*; and is frequently to be attended to in distinguishing single specimens of *cinnamomea* from certain states of *tomentosa*.

Petals seldom offer any remarkable differences. In most species they are concave and spreading; in *involuta* they are turned inwards at the edge; in *carolina* crumpled; in *Lawranceana* pointed.

Stamens vary only in number, and in this respect they can rarely be employed, except among secondary characters. In *rubrifolia* and the rest of its division they are very few, and in *Bracteatæ* exceedingly numerous. Usually they remain adhering to the orifice of the fruit till it is decayed; but in *sempervirens*, *moschata*, *semperflorens* and some few others they drop off nearly at the same time as the petals. The last species may be distinguished from *indica* by this among other things. They are commonly about four times as

numerous as the ovaria; in *spinosissima, reversa, indica,* &c. they are twice; in *bracteata, acicularis, ferox,* &c. thrice; and in *Lawranceana* eight times as numerous.

Ovaria may in some cases be usefully employed to distinguish species; but for that purpose it is absolutely necessary that they should be examined in the primordial flower. *Villosæ* have from 30 to 40, in which respect *Rubiginosæ* agree with them. *Caninæ* have from 15 to 25 except in the case of *caucasea,* in which they are from 50 to 60; and of *Lawranceana,* where they are reduced to 7.

Styles by their exsertion and cohesion characterize a section, of which the species are naturally allied. There is one plant however *(R. setigera)* with this peculiarity, which differs materially in other respects, and having subulate stipulæ stands in the division *Banksianæ.*

Fruit has been much relied upon as offering very evident characters; and if these were constant none could be better. It however unfortunately happens that few parts of the plant are more subject to variation, not only as to surface, but form and size. This remark is particularly applicable to *tomentosa, canina,* and *rubiginosa,* in which every diversity of form, &c. may be found. Yet there are some species in which it appears to be much less polymorphous; but whether from our having less knowledge of them, or from the absence of the predisposition to vary for which *canina* and its neighbours are so famous, I do not pretend to be able to judge. *Cinnamomeæ* may be considered to offer examples of the greatest uniformity, and *Caninæ* and *Villosæ* of the greatest diversity of fruit.

The species are all included between the 70th and 20th degrees of Northern latitude; except the *R. Montezumæ* of Mexico, found in 19° N. at an elevation of more than 9300 feet above the level of the sea. But Baron Humboldt has calculated that in tropical countries the decrement of caloric is one degree every 90 toises of vertical elevation; therefore the heat at this height would be nearly the same as that of countries 29° further from the equator; so that its situation is essentially the same as that of the principal European parallel, to the species of which it is more nearly related than to those of its own continent.

In Asia half the species have been found. Of the thirty-nine which it produces, eighteen are natives of the Russian dominions and the countries adjacent. Most of these are very similar to the European portion of the genus, and five are common both to Europe and to Asia. Of the remainder, one, which is perhaps a distinct genus, has been discovered in Persia, fifteen in China, and two of the latter with four others in the North of India; one of which has considerable affinity to the *R. moschata* of Northern Africa. The Chinese and Indian species have an habit entirely different from the rest; but *R. sericea* and *macrophylla* of Gossam Than exhibit in some measure the appearance of both. It is from Asia, which may indeed be called "the land of the Rose," that the greatest number of novelties are to be expected. With the Roses of the Crimea we are entirely unacquainted, and yet they are said to grow there in the most astonishing profusion. Mr. Moorcroft met with small rose-bushes at Niti, in latitude 30° 50′ N. just coming into leaf on the 9th of June;

and there is every reason to believe that China contains very many undescribed species.

Europe has twenty-five species; of which five sixths exist between 40° and 50°. The countries bounded by these parallels must therefore be considered as forming their principal range. To the south of this they decrease in number much more rapidly than to the north. Britain, which lies just without its northern limits, has ten species, Denmark seven, and Holland thirteen; whilst in Spain, Portugal, and the Levant, which bear nearly the same relation to it on the south, only four species have been observed. Many are peculiar to certain districts, as *reversa*, *myriacantha*, *hibernica*, and *involuta*; others to countries, as the *majalis* of Sweden and Denmark, and *glutinosa* of the Levant. Some few are only confined by the extreme limits of the genus; thus *spinosissima* is common to the dreary wilds of Iceland and the sultry shores of the Mediterranean; *canina* grows from the confines of Angermannia to the most southern regions of Europe; thence extending into Egypt.

In the North of Africa are two species peculiar to that country; and two others common to it and Europe.

Fourteen species have been found in North America, none of which except *R. Montezumæ* and *stricta* have much general resemblance to European Roses. It is not unworthy of notice that *R. lævigata* of the woods of Georgia is so similar to the *R. sinica* of China as not to be immediately distinguishable from it. The latter is even sold in some of the London nurseries as an American Rose under the name of *R. Cherokeensis*.

ROSA.

Calycis tubus urceolatus carnosus achenia plurima hirsuta includens. Receptaculum villosum.

SYNOPSIS SPECIERUM ET VARIETATUM.

Div. I. *Simplicifolia.* Folia simplicia exstipulata. (Receptaculum impube *Pall.*) Vel aphylla; stipulis confluentibus.

1. R. *berberifolia.*

Div. II. *Ferocες.* Rami tomento persistente vestiti. Fructus nudus.

2. R. *ferox,* armis confertissimis inæqualibus conformibus.
3. R. *rugosa,* armis confertissimis subæqualibus, pedunculo aculeato. Tab. 19.
4. R. *kamchatica,* aculeis infrastipularibus falcatis majoribus, foliis opacis.

Div. III. *Bracteatæ.* Rami fructusque tomento persistente vestiti.

5. R. *involucrata,* foliolis lanceolato-ellipticis infra tomentosis, bracteis contiguis pectinatis.
7. R. *bracteata,* foliolis oblongis obtusis glaberrimis, bracteis appressis pectinatis.
   β. *scabricaulis,* ramis setigeris, aculeis minoribus rectiusculis.
8. R. *Lyellii,* foliolis oblongo-lanceolatis glabris, bracteis distantibus integris, floribus cymosis. Tab. 1.

Div. IV. *Cinnamomeæ*. Setigeræ v. inermes bracteatæ. Foliola lanceolata eglandulosa. Discus tenuis (nequaquam incrassatus).

Obs. *R. alpinæ* et *aciculari* divisionis proximæ bracteæ quandoque adduntur: sepala autem nunquam ante fructus maturitatem decidunt.

9. R. *nitida*, pumila, armis confertissimis gracilibus, foliolis nitidis angustè lanceolatis planis. Tab. 2.
10. R. *rapa*, elatior diffusa, ramulis inermibus, foliolis oblongis undulatis lucidis, fructu hemisphærico.
11. R. *lucida*, compacta, aculeis ramorum stipularibus, foliolis oblongis imbricatis planis lucidis, fructu depresso-globoso.
12. R. *laxa*, diffusa, ramulis vimineis subinermibus, foliolis oblongis undulatis opacis glaucescentibus. Tab. 3.
13. R. *parviflora*, pumila, stipulis linearibus: aculeis acicularibus, foliolis lanceolatis glabriusculis argutè serratis, calycibus viscosis.
14. R. *Woodsii*, stipulis sepalisque conniventibus, foliolis oblongis obtusis glabris.
15. R. *carolina*, stipulis convolutis, foliolis lanceolatis, sepalis patentibus. Tab. 4.

    β. *florida*, foliis impubibus tenerioribus.
16. R. *blanda*, elatior, armis deciduis, foliolis oblongis planis: petiolo piloso.
17. R. *fraxinifolia*, elatior, inermis, ramis strictis glaucescentibus, foliolis opacis undulatis impubibus.
18. R. *cinnamomea*, elatior cinerea, ramis strictis, aculeis stipularibus rectiusculis, stipulis dilatatis undulatis, foliolis oblongis rugosis subtus tomentosis. Tab. 5.

    β. *fluvialis*, foliolis (ovatis) acutis.
19. R. *taurica*, elatior cinerea, aculeis sparsis debilibus, ramis strictis apicem versus inermibus, foliolis oblongis rugosis subtus villosis, sepalis compositis, stylis porrectis glabriusculis.
20. R. *davurica*, elatior ramosissima, ramis tenuibus

coloratis, aculeis stipularibus patentissimis subrecurvis, stipulis linearibus, foliolis oblongis rugosis subtus tomentosis altè serratis.

Forte *R. cinnamomeæ* varietas.

21. R. *aristata*, foliolis superioribus sub-bijugis, petiolo in spina producto.

R. cinnamomeæ nimis propinqua.

22. R. *majalis*, humilior, cæsia, ramis strictis coloratis, aculeis sparsis subæqualibus, stipulis linearibus, foliolis oblongis planis subtus glaucis tomentosis.

β. *canescens*, foliis albido-cæsiis.

23. R. *macrophylla*, inermis, foliis longissimis, petiolis parcè glandulosis foliolisque lanceolatis subtus lanatis, sepalis angustissimis petalis apiculatis longioribus. Tab. 6.

Div. V. *Pimpinellifoliæ*. Setigeræ armis confertis subconformibus, v. inermes; ebracteatæ (rarissimè bracteatæ). Foliola ovata, v. oblonga. Sepala conniventia, persistentia. Discus subnullus.

24. R. *alpina*, inermis, fructu elongato pendulo: pedunculo hispido.

β. *pyrenaica*, calycis tubo pedunculoque hispidulis.

γ. *pendulina*, foliolis pluribus cauleque coloratis.

δ. *pimpinellifolia*, omnibus partibus minor.

25. R. rubella, armis confertis æqualibus, fructu elongato pendulo.

β. *melanocarpa*, fructu nigro-fusco breviore.

26. R. *stricta*, ramosissima, ramulis inermibus, fructu elongato pendulo. Tab. 7.

27. R. *acicularis*, elatior, aculeis acicularibus inæqualibus, foliolis glaucis rugosis convexiusculis, fructu obampullaceo cernuo. Tab. 8.

28. R. *sulphurea*, stipulis linearibus apice dilatatis divaricatis, foliolis glaucis planiusculis, tubo calycis hemisphærico.

29. R. *lutescens*, armis ramorum confertissimis inæqualibus gracilibus reflexis, ramulorum minimis subæqualibus, foliolis planis impubibus simpliciter serratis. Tab. 9.

30. R. *viminea*, ramis vimineis, armis setaceis confertissimis rectis patentibus inæqualibus, foliolis membranaceis planis impubibus simpliciter serratis.

31. R. *spinosissima*, armis inæqualibus, foliolis planis impubibus simpliciter serratis.

    β. *reversa*, pumila, armis gracillimis, inferioribus deflexis, fructu ovato.

    γ. *platycarpa*, pumila, fructu depresso et pedunculo setoso.

    δ. *pilosa*, pumila foliis acutis infra pilosis.

    ε. *turbinata*, pumila, fructu turbinato.

    ζ. *Pallasii*, elatior, armis subæqualibus confertis.

    η. *rossica*, elatior, aculeis longis gracillimis.

    ϑ. *islandica*, elatior, aculeis maximis falcatis.

    ι. *sanguisorbifolia*, elatior, foliolis 9-11 oblongis, fructu depresso globoso.

32. R. *grandiflora*, setis ramorum nullis, aculeis subæqualibus distantibus, foliolis planis impubibus simpliciter serratis.

33. R. *nankinensis*, pumila ramosissima, armis confertissimis, foliolis acuminatis ciliato-serratis, sepalis aculeatis, petalis apiculatis.

    An *R. Lawranceanæ* affinior?

34. R. *myriacantha*, armis inæqualibus: majoribus pugioniformibus, foliolis glandulosis impubibus orbiculatis.

35. *R. involuta*, armis valde inæqualibus confertissimis, foliolis duplò serratis pubescentibus, petalis convolutis, fructu aculeato.

36. R. *reversa*, armis setaceis subæqualibus reflexis, foliolis duplicato-serratis pubescentibus, fructu hispido.

37. R. *marginata*, pumila, ramis tortuosis junioribus

pruinosis, foliolis ovatis cordatis 3plo serratis glaberrimis, sepalis muricatis.

38. R. *Sabini*, setis raris aculeisque inæqualibus distantibus, foliolis duplò serratis tomentosis, sepalis compositis.

β. *Doniana*, setis subnullis, aculeis rectiusculis.

Div. VI. *Centifoliæ*. Setigeræ, armis difformibus; bracteatæ. Foliola oblonga v. ovata, rugosa. Discus incrassatus faucem claudens. Sepala composita.

39. R. *damascena*, armis inæqualibus: majoribus falcatis, sepalis reflexis, fructu elongato.

40. R. *centifolia*, armis inæqualibus: majoribus falcatis, foliolis glanduloso-ciliatis, floribus cernuis, calycibus viscosis, fructu oblongo.

β. *muscosa*, calycibus pedunculisque muscosis.

γ. *pomponia*, omnibus partibus minor.

δ. *bipinnata*, foliis bipinnatis.

41. R. *gallica*, armis subæqualibus conformibus debilibus, foliolis rigidis ellipticis, floribus erectis, sepalis ovatis, fructu subgloboso.

β. *pumila*, floribus simplicibus, radicibus repentibus.

γ.? *arvina*, foliis utrinque nudis.

42. R. *parvifolia*, nana, armis subæqualibus, foliolis rigidis ovatis acutis argutè serratis, sepalis ovatis.

Div. VII. *Villosæ*. Surculi stricti. Aculei rectiusculi. Foliola ovata v. oblonga serraturis divergentibus. Sepala conniventia persistentia. Discus incrassatus faucem claudens.

43. R. *turbinata*, calycis tubo turbinato.

44. R. *villosa*, foliolis ellipticis obtusis, fructu maximo armis rigidis confertis horrido, sepalis viscosis hispidis.

45. R. *tomentosa*, foliolis ovatis acutiusculis, fructu hispido nudove.

α. *vera*, surculis arcuatis, sepalis compositis.

β. *mollis*, surculis strictissimis, sepalis subsimplicibus.

γ. *resinosa*, pumila, cæsia, foliolis angustis, floribus ruberrimis.

46. R. *alba*, foliolis oblongis glaucis supra nudiusculis simpliciter serratis, sepalis reflexis, fructu inermi.

47. R. *hibernica*, aculeis inæqualibus minoribus setiformibus, foliolis ovatis acutis nudiusculis simpliciter serratis.

Div. VIII. *Rubiginosæ*. Aculei inæquales, nunc setiformes, rarò (an unquam?) nulli. Foliola ovata v. oblonga, glandulosa, serraturis divergentibus. Sepala persistentia. Discus incrassatus. Surculi arcuati.

48. R. *lutea*, aculeis rectis, foliolis planis concavis, calycibus subinermibus integris.

β. *punicea*, floribus 2coloribus.

49. R. *rubiginosa*, aculeis aduncis, foliolis rugosis opacis, calycibus pedunculisque hispidis.

α. *vulgaris*, aculeis fortibus valde inæqualibus, stylis villosis, fructibus ovatis v. oblongis.

β. *micrantha*, aculeis ramulorum æqualioribus v. nullis, sepalis ante maturitatem deciduis, stylis villosiusculis, fructibus oblongis vel obovatis.

γ. *umbellata*, inflorescentiæ ramulis aculeatissimis, fructibus elongatis.

δ.? *grandiflora*, foliis nudiusculis, floribus maximis, fructu purpureo.

ε. *flexuosa*, ramis valde flexuosis, foliolis suborbiculatis, bracteis deciduis, floribus subsolitariis, stylis impubibus.

ζ. *rotundifolia*, ramis flagelliformibus, aculeis rectiusculis tenuibus, foliolis subrotundis duplò minoribus, calycis tubo subgloboso glabro.

η. *sepium*, ramis debilibus flexuosis, foliolis utrinque acutis, floribus subsolitariis, fructibus glaberrimis, sepalorum laciniis angustissimis.

ϑ. *inodora*, aculeis valde aduncis subæqualibus, foliolis minùs glandulosis, sepalis ante maturitatem deciduis.

50. R. *pulverulenta*, ramulis glandulosis, foliis utrinque pruinosis: superioribus subverticillatis.

51. R. *cuspidata*, sepalis hispidis in cuspide lineari-lanceolato serrato ipsis longiore productis.

52. R. *glutinosa*, ramulis pilosis, foliolis incanis suborbiculatis viscosis.

53. R. *Montezumæ*, ramis inermibus.

Div. IX. *Caninæ*. Aculei æquales adunci. Foliola ovata eglandulosa, serraturis conniventibus. Sepala decidua. Discus incrassatus faucem claudens. Surculi majorum arcuati.

54. R. *caucasea*, foliolis mollibus ovatis, ovariis 50-60. Tab. 2.

55. R. *canina*, foliolis rigidis ovatis, ovariis 20-30.

β. *aciphylla*, pumila, foliis utrinque impubibus floribusque multò minoribus.

γ. *ægyptiaca*, foliolis latè ovatis grossè serratis utrinque impubibus, calycis tubo elongato.

δ. *collina*, foliolis infrà v. petiolo hirsutis, sepalis pedunculisque hispidis, disco conico.

ε. *dumetorum*, foliolis utrinque hirsutis, sepalis pedunculisque glabris.

ζ. *cæsia*, foliolis cæsiis utrinque pilosis, calycis tubo elliptico.

56. R. *rubrifolia*, aculeis parvis distantibus, foliolis ovatis ramisque glaucis opacis discoloribus, ovariis 20-30.

57. R. *sericea*, aculeis stipularibus compressis: superioribus runcinatis, foliolis oblongis obtusis apice serratis subtus sericeis. Tab. 12.

57*. R. *microphylla*, foliolis nitidis argutè serratis, calyce aculeis densissimis muricato, sepalis brevibus late ovatis apiculatis.

58. R. *indica*, foliolis ellipticis acuminatis glabris crenato-serratis subtus glaucis, ovariis 40-50.

β. *odoratissima*, fructu ovato, floribus odoratissimis.

γ. *pumila*, fruticulus, omni parte minor.

δ. *longifolia*, foliolis lanceolatis, ramis subinermibus.

59. R. *semperflorens*, foliolis ovato-lanceolatis crenato-serratis, ovariis 15, petalis integris.

60. R. *Lawranceana*, nana, foliolis ovatis acutis argutè serratis, petalis acuminatis, ovariis 7-8.

Div. X. *Systylæ*. Styli in columnam elongatam cohærentes. Stipulæ adnatæ.

61. R. *systyla*, surculis assurgentibus, aculeis validis aduncis.

β. *lanceolata*, foliolis ovato-lanceolatis, fructu sphærico.

γ. *Monsoniæ*, caule humiliore: florifero erecto multifloro, ramis rarò setigeris.

62. R. *arvensis*, surculis flagelliformibus, aculeis inæqualibus falcatis, foliolis subtus glaucis.

β. *montana*, pumila, fructu hispidulo.

γ. *hybrida*, surculis crassioribus et brevioribus: florifero erecto multifloro, ramis sparsim setigeris, stylis discretis.

63. R. *abyssinica*, surculis scandentibus, aculeis confertissimis falcatis, foliolis ovatis sempervirentibus, calycibus pedunculisque tomentosis. Tab. 13.

64. R. *sempervirens*, surculis scandentibus, aculeis subæqualibus falcatis, foliis sempervirentibus.

β. *microphylla*, foliolis suborbiculatis.

65. R. *prostrata*, surculis prostratis, aculeis subæqualibus falcatis, foliis sempervirentibus, stylis glabris.

Præcedenti valde affinis.

66. R. *multiflora*, ramulis pedunculis calycibusque tomentosis, foliolis mollibus lanceolatis rugosis, stipulis pectinatis.

67. R. *Brunonii*, ramulis foliolis lanceolatis calycibusque tomentosis glandulosis, stipulis integris.

68. R. *moschata*, ramulis nudiusculis, foliolis ellipticis acuminatis subtus glaucis serraturis conniventibus, stipulis integris, sepalis compositis acuminatis.

    β. *nudiuscula*, foliolis oblongis acutis impubibus, petiolis pedicellis calycibusque glandulosis.

69. R. *rubifolia*, ramulis impubibus, foliolis ovato-lanceolatis: serraturis divaricatis, stipulis integris, sepalis ovatis, fructibus pisiformibus.

    β. *fenestralis*, foliolis utrinque impubibus, floribus subsolitariis. Tab. 15.

Div. XI. *Banksianæ*. Stipulæ subliberæ, subulatæ v. angustissimæ, sæpius deciduæ. Foliola sæpius ternata, nitida. Caules scandentes.

70. R. *lævigata*, stipulis lineari-lanceolatis semiadnatis, petiolis inermibus, fructibus muricatis.

71. R. *sinica*, stipulis setaceis deciduis, petiolis costaque aculeatis, fructibus muricatis. Tab. 16.

72. R. *recurva*, stipulis subulatis, foliolis 5-9, petiolis aculeatis, fructibus muricatis.

73. R. *setigera*, sepalis pinnatifido-setigeris, stylis coalitis, fructibus muricatis.

74. R. *hystrix*, armis ramulorum confertis: majoribus falcatis, foliolis ovatis, fructibus hispido-muricatis. Tab. 17.

75. R. *microcarpa*, floribus corymbosis, fructibus pisiformibus inermibus. Tab. 18.

76. R. *Banksiæ*, ramis et fructibus inermibus.

Incertæ sedis.

77. R. *pseud-indica*, indicæ facie, floribus plenis luteis, calycibus hirsutis?

78. R. *xanthina*, spinosissimæ facie, floribus plenis sulphureis.

ROSA.

Div. I. *Simplicifolia.* Folia simplicia exstipulata. (Receptaculum impube *Pall.)*

1. ROSA berberifolia.

R. simplicifolia *Salisb. hort. allert.* 359. *Parad. lond.* 101. *c. fig. Olivier voy.* 5. 49. *atl. t.* 43.

R. berberifolia. *Pall. in nov. act. petr.* 10. 379. *t.* 10. *f.* 5. *Willd. sp.* 2. 1063. *Ait. kew. ed. alt.* 3. 258. *Smith in Rees. in l. Redout. ros.* 1. 27. *t.* 2.

Hab. prope Amadan abundè solo salito, *Michaux* (Olivier); in campis infra jugum montium Elvind, (Olivier); deserto Songarico, (Sievers). *(v. s. sp. herb. Banks.)*

Two or three feet high, (a foot high, *Olivier,)* very cæsious. *Branches* slender, pubescent, covered with setæ, which disappear on the branchlets; *prickles* slender, falcate, with a remarkably elongated base, slightly downy, sometimes compound; placed below the *leaves,* which are sessile, erect, simple, narrow, obovate, simply toothed towards the end, densely pubescent, unarmed, almost veinless; *stipulæ* none; *flowers* solitary, without bracteæ, cupshaped (sweet-scented, Olivier); *tube of the calyx* downy, nearly round, and covered with needle-shaped, pale, unequal

prickles, extending up the *sepals*, which are densely downy and entire; *petals* deep yellow with a dark crimson spot at their base; *stamens* few; *styles* villous. *(Fruit* crowned with the sepals, pale green, depressedly globose, armed with numerous unequal prickles: *pericarps* 25, oblong, blackish. *Pall.)*

Although Mr. Salisbury's name for this highly curious plant was published before Pallas's, and, as Sir James Smith observes, is much the best; yet, as *berberifolia* has been almost universally adopted, I should scarcely be justified in giving up expediency to a right of priority, which, moreover, is supported only by the antecedency of a few months. Its whole appearance is remarkably unlike the rest of the genus. Indeed, the absence of stipulæ, which cannot be metamorphosed into aculei, as has been conjectured by M. de Jussieu, would almost induce us to look for a generic difference; especially if the receptacle be destitute of hairs, as Pallas asserts, but which we have no means of ascertaining. Perhaps, however, it is not improbable that the whole plant may be aphyllous, supposing the apparent leaves to be confluent stipulæ. No other Rose has compound aculei.

Certain districts in the North of Persia and the desert of Songari in Chinese Tartary are the only stations recorded as producing the present lovely plant. It was found by Olivier covering the plains near Amadan, and in many other places in the same neighbourhood. If we may judge from the fine figure of M. Redouté, French gardeners must have the art of managing it much more successfully than our own. Possibly the soil in which it grows wild being salt may afford a hint to those who may again have an opportunity of cultivating it. It flowers in the spring.

Div. II. *Feroces.* Rami tomento persistente vestiti. Fructus nudus.

Plants with these characters form a very small but strictly natural assemblage. They are low shrubs, losing their leaves early in the autumn, and are then remarkable for thick hoary branches bristly with numerous prickles. Their fruit, which never has any pubescence, readily distinguishes them from the next, in which the down is very conspicuous.

2. ROSA ferox.

R. armis confertissimis inæqualibus conformibus.

R. ferox. *Lawr. roses. t.* 42. *Br! in Ait. kew. ed. alt.* 3. 262. *Smith in Rees in l. Lindley in Edwards's Reg. t.* 420.

R. Kamchatica *Redout. Roses.* 1. 47. *t.* 12.

Hab. in Caucaso, (Aiton.) *(v. v. cult.)*

Four or five feet high. *Branches* downy, procumbent, covered all over with unequal rigid, straightish, pale, pubescent prickles and a few setæ. *Leaves* shining, bright green, rugose; *stipulæ* large, dilated upwards, downy, curled at the edge and glandular, naked above; *petioles* downy, with a few setæ and prickles; the latter yellow, slender and nearly straight; *leaflets* 5-9 elliptic, retuse, simply (seldom doubly) serrated, naked above, hairy beneath and paler; their veins unusually close. *Flowers* large, red, solitary; *bracteæ* none, or large, nearly orbicular, pilose, serrated, fringed with glands; *peduncle* downy; *tube of the calyx* obovate, naked; *sepals* narrow, triangular, sometimes disposed to become compound, downy; *petals* obcordate, concave, crumpled; *stamens* 150-185; *disk* little elevated; *ovaria* 50-60; *styles* villous, distinct, a little exserted. *Fruit* globose, scarlet, covered with a deli-

cate bloom: upper part of the peduncle naked: *pericarps* pale yellow, hairy.

The *hedgehog* Rose, by which name this is known in the gardens, seems to have been first noticed by Miss Lawrance, who probably obtained it from the very extensive collection of Messrs. Lee and Kennedy; for by those indefatigable cultivators it was first introduced.

M. Thory has strangely confounded it with *R. kamchatica*, which he considers has been brought to be *R. ferox* by cultivation. How improbable is such a change must be sufficiently evident to any one who has carefully seen the two in a living state. Besides the distinction in the arms on which their specific character is founded, I may add that *R. kamchatica* is a taller plant than *R. ferox;* its leaves are opaque, not shining, smaller, and with a different outline, changing colour and falling off in the very beginning of autumn, long before those of *R. ferox* are withered; its fruit is also smaller and shorter than the sepals, which do not appear to have any disposition to become compound. In *R. ferox*, on the contrary, the calyx is more frequently compound than otherwise; in more than one instance I have observed the segments so much divided that two were perfect leaves; the others becoming less obviously so in the order of the old distich.

If kept in a vigorous state by close pruning, this plant is very beautiful, on account of its fine, showy, crimson blossoms, which appear before those of the more common and fragrant species.

Rosa rugosa

H. fec.

Pub by J. Ridgway 170 Piccadilly, 1820 as the act directs.

3. ROSA rugosa.

R. armis confertissimis subæqualibus, pedunculo aculeato.

R. rugosa *Thunb. jap. p.* 213. *Willd. sp.* 2. 1070. *Pers. syn.* 2. 48. *Smith in Rees in loc.*

Ramanas *Japonorum. Thunb.*

Vamanas? *Icones Japonens. in bibl. Banks.*

Hab. in Japonia (Thunb.)

Known only from the account of Thunberg, whose description contains very little to distinguish this from *R. ferox* or *kamchatica*. He says it is called *Ramanas* by the natives of Japan.

In the collection of Japanese drawings in Sir Joseph Banks's library is the figure of a Rose marked *Vamanas*, which answers tolerably to Thunberg's description, and, as the resemblance of the names seems to indicate, is probably the very same. Its *branches* are slender (downy Th.) armed with very dense, straight, nearly equal (unequal Th.) prickles; *stipules* (none in the figure); *petioles* (downy Th.) with several straightish, scattered prickles; *leaflets* 5-9, ovate, very rugose, simply serrated, obtuse (with an acumen, downy beneath Th.), veins very close. *Flowers* solitary; *bracteæ* none; *peduncle* (downy Th.) beset with several straight, short, scattered prickles, which are verticillate and larger at its base; *tube of the calyx* (globose Th.) ovate, naked; *sepals* reflexed (hairy Th.) entire, very narrow,—two with a dilated, foliaceous, serrated end; *petals* spreading emarginate.

Supposing this to be Thunberg's plant, which we can scarcely doubt, it will be easily distinguished from its nearest allies by the numerous leaflets, nearly equal prickles of the stem, and curved prickles of the peduncle, which last are remarkable for their form, as being situated on a part where they are usually slender, straight and mixed with setæ in other species.

4. ROSA kamchatica.

R. aculeis infrastipularibus falcatis majoribus, foliis opacis.

R. kamchatica *Vent. Cels. t.* 67. *Ait! kew. ed. alt.* 3. 259. *Pers. syn.* 2. 47. *Smith! in Rees in loc. Lindley in Edwards's Reg. t.* 419.

Hab. in Kamtchatkæ locis siccis saxosis, *Nelson. (v. v. cult. et s. sp. herb. Banks.)*

Three or four feet high, with nearly the habit of *R. ferox*. *Branches* downy, pale brown, procumbent, beset with pubescent prickles and setæ, when old frequently naked; *prickles* under the stipulæ large, falcate, spreading, two or three together; the intermediate ones much smaller. *Leaves* gray, opaque; *stipulæ* large, much dilated upwards, rather hairy, curled at the edge and here and there fringed with glands; *petioles* downy, unarmed; *leaflets* 5-9, obovate, blunt, deeply and simply serrated, the teeth callous at the end, naked above, hairy and paler beneath. *Flowers* solitary, deep red; *bracteæ* elliptical, nearly naked; *peduncle* hairy at the base, purple; *tube of the calyx* globose, naked; *sepals* very narrow, downy, and sparingly glandular, a little dilated at the end, longer than the *petals*, which are obcordate, sometimes apiculate; *stamens* 160-170; *disk* a little elevated, more evident than in *R. ferox; ovaria* 50; *styles* villous, distinct, a little exserted. *Fruit* spherical, scarlet, less than in *R. ferox;* as are the *pericarps*, which are small, shining, with an even surface.

This has usually been considered of somewhat recent introduction to the gardens of Europe; but it is certain that the period of its arrival may be fixed at somewhat beyond the middle of the last century. Sir James Smith possesses a specimen of it gathered in the

botanic garden at Chelsea in 1791; and in the Linnean herbarium are seedling plants marked *China*, which I have no hesitation in pronouncing to be the present plant. To M. Ventenat however must be given the credit of having first made it known in his *Jardin du Cels*. It flowers most part of the summer at irregular intervals. The only spontaneous specimens I have seen are in the magnificent herbarium of Sir Joseph Banks. They were collected by Nelson in Captain Cook's last voyage, and differ from the cultivated plant in having more ovate and numerous leaflets, smaller flowers, and less dissimilarity in the form of the prickles.

Div. III. *Bracteatæ*. Rami fructusque tomento persistente vestiti.

This section, which probably extends across the continent of Asia, from Nepal to China, is readily distinguished from the preceding by the thick woolliness of its fruit, a peculiarity entirely confined to itself. Its leaves are very dense, usually shining, and the prickles are placed under the stipulæ in pairs: the species which compose it may be considered to have their organs of fructification in the highest state of developement in the genus. The stamens vary from 350 to 400, and the ovaries from 140 to 170; the former being twice and the latter three times as numerous as in the last section, which perhaps holds the next rank in the scale of developement.

5. ROSA involucrata.

R. foliolis lanceolato-ellipticis infra tomentosis, bracteis contiguis pectinatis.

R. involucrata *Roxb. fl. ind. ined.*

R. palustris *Buchanani MSS.*

Hab. in Nepalia, *Buchanan;* Bengalia tempore fervido ineunte florifera, pluvioso fructifera, *Roxb. MSS.;* China, *ic. Sinens. (v. v. cult. et s. sp. herb. Lamb.)*

Branches pale brown, flexuose, covered with very soft down; *prickles* generally naked, with a long base, bright brown, pointing upwards, placed by pairs under the *stipulæ*, which are nearly distinct, downy, and divided at the margin into several capillary compound segments, here and there fringed with glands; on vigorous rootshoots they are united half way, and then the part which is disengaged frequently extends into a small pinnate leaf; *petioles* slender, downy, with a few small prickles; *leaflets* 3-9, elliptic lanceolate, obtuse, bluntly serrated, dull green, naked above, downy (rarely naked) and paler beneath. *Flowers* white, subsolitary, surrounded by three or four approximated leaves; *bracteæ* pectinate, woolly, as are the short *peduncle*, globose *tube of the calyx*, and spreading entire *sepals; petals* emarginate, longer than the last; *disk* long, large and thickened; *styles* villous, a little exserted.

For an opportunity of examining spontaneous specimens of this new species I am indebted to Mr. Lambert; they were collected in Nepal by Dr. Buchanan, and from the ticket attached to them, probably in marshy situations. Of this however no mention is made by Dr. Roxburgh, by whom in his manuscript *Flora Indica* a detailed account of the species is given with the name here adopted. It has recently been im-

ported from the East Indies by Messrs. Whitley and Co. of Fulham, in whose fine collection I have seen it growing vigorously, and it proves an highly desirable addition to our gardens. It cannot possibly be confounded except with R. *bracteata* or *microphylla*, from both which its dull narrow leaves, hoary beneath, and long slender shoots, distinguish it sufficiently; besides, the bracteæ are at a little distance from the flowers. From a figure in a collection of Chinese drawings in the possession of Mr. Cattley it appears to be a native of China as well as India.

6. ROSA microphylla.

R. foliolis ovatis minoribus, bracteis appressis pectinatis, fructu aculeato.

R. microphylla *Roxb ! fl. ind. ined.*

Hoi-tong-hong *Sinensium.*

Hab. in China, *Roxburgh. (v. pict. iconibus Sinens. bibl. cel. Colebrooke.)*

Apparently a smaller plant than *R. bracteata*, from which it differs in having prickly fruit, and ovate, obtuse leaves. As I am scarcely acquainted with it except from a drawing in the possession of Mr. Colebrooke, it is not possible nor indeed advisable to draw up a detailed description. Specimens however may probably exist among the unarranged plants in the herbaria of this country, and may afford materials for a complete account of it at some future time. Its flowers are double and of a very delicate blush colour, so that in a living state it must be a charming plant. I have seen some fragments of a Rose nearly allied to the Macartney, obtained from a plant in the collection of the Right Honourable Lord Suffield at Blickling,

Norfolk, the flowers of which are reported to be small and double. This therefore is very likely to be our plant, and if so, there can be no doubt, from the well-known liberality of its noble proprietor, that it will soon find its way into general notice.

7. ROSA bracteata.

R. foliolis oblongis obtusis glaberrimis, bracteis appressis pectinatis.

R. bracteata *Wendl. obs. p.* 50. *hort. herrenhus.* 7. *t.* 22. *Vent. cels. t.* 28. *Redout. ros.* 1. 35. *t.* 6.

R. lucida *Lawr. ros. t.* 84.

R. Macartnea *Dumont-Cours. bot. cult. fide Redouté.*

β scabricaulis, ramis setigeris, aculeis minoribus rectiusculis.

R. bracteata *Mönch meth. suppl.* 290. *Jacq. fragm.* 30. *t.* 34. *f.* 2. *Curt. mag.* 1377. *Smith in Rees in l.*

Hab. in Bootan, *Roxb;* β in Chinæ provinciâ Tchetchiang, *Staunton. (v. v. c. et s. sp. herb. Banks.)*

A compact dark green shrub. *Branches* erect, stout, downy; *prickles* hooked, very strong, placed by pairs under the stipulæ, somewhat downy. *Stipulæ* nearly distinct, pilose, pectinate: segments capillary, the uppermost sometimes dilated and extending into a small pinnate leaf; *petioles* almost naked, with a few small, strong, hooked prickles; *leaflets* 5-9, crenate, obovate, flat, shining, blunt, naked on both sides, dark green above, paler beneath; their veins inconspicuous. *Flowers* showy, pure white, solitary, nearly sessile in

the midst of several ovate, imbricated, downy *bracteas*, finely pectinate at the edge; *tube of the calyx* and *sepals*, which are nearly simple, woolly on the outside; *petals* large, obovate; *disk* much thickened, nearly flat; *stamens* 350-400; *ovaria* 140-170; *styles* distinct, naked. *Fruit* spherical, orange red, covered all over with woolliness; *pericarps* brownish, wrinkled, immersed in the unusually copious hairs of the receptacle.

This plant, although a native of China and the northern provinces of India, is nevertheless tolerably hardy in our gardens, producing its fine milk-white flowers in profusion during the greater part of the summer. For ripe fruit I am indebted to Mr. Lyell.

For the present I have thought it better not to consider var. β as a distinct species; but it is probable that, by future observation, its characters may be found sufficient to entitle it to a place by itself. In general appearance, it is similar to the plant described and figured by Wendland; yet when the two grow side by side, their aspect presents several marks of difference. The variety β is much less than the other; it forms a more compact bush; the prickles are nearly straight, not strong and hooked; the stem is covered with setæ, of which there are no traces on the other. This last character is of the most importance, because when setæ are produced accidentally, they usually are occasioned by excessive luxuriance, and therefore ought to be found on the stronger plant of the two, and not on the weaker, as is the case here. I am not disposed to lay much stress upon their different habitats, because, as I have already observed, it is probable that the present group extends across the continent of Asia in certain latitudes.

8. ROSA Lyellii. Tab. 1.

R. foliolis oblongo-lanceolatis glabris, bracteis distantibus integris, floribus cymosis.

Hab. in Nepalia; *Wallich. (v. s. sp. herb. Banks.)*

Amicissimo Carolo Lyellio Arm., *Botanices indigenæ præcipuè cryptogamicæ peritissimo, susceptique nostri fautori acerrimo, dicata.*

A small shrub with the appearance of *R. bracteata*. *Branches* densely villous, without setæ; *prickles* placed by pairs under the stipulæ, straight. *Leaves* dense, spreading, longer than the joints of the stem; *stipulæ* villous, adhering, divided at the edge into many very narrow segments, sparingly fringed with glands; *petioles* downy, armed with a few small, hooked prickles; *leaflets* 7, oblong-lanceolate, very shining, simply serrated, naked on both sides, except the midrib beneath, which is downy. *Flowers* cymose; *bracteæ* at some distance from the calyx, linear, erect, hoary, entire; *pedicels* hoary, elongated, glandular; *tube of the calyx* and *sepals*, which are nearly simple, and shorter than the petals, woolly. *Petals* and other parts of the fructification appear to be the same as those of *R. bracteata*.

I have great pleasure in having an opportunity of giving so fine a species as this, to my excellent friend Mr. Lyell, whose extensive knowledge of the genus and liberality in communicating it, highly entitle him to such a distinction.

It has been recently sent from Nepal with a very extensive collection of equally interesting plants to Sir Joseph Banks, by Dr. Wallich. The entire narrow bracteæ, at a considerable distance from the flowers, at once distinguish it from the rest of the division, with the characters of which it does not otherwise disagree.

Div. IV. *Cinnamomeæ.* Setigeræ v. inermes, bracteatæ. Foliola lanceolata eglandulosa. Discus tenuis (nequaquam incrassatus).

This section is particularly distinguished by its long, lanceolate leaves without glands; upright shoots and compact habit; red flowers which are never solitary except by abortion, and consequently always supported by bracteæ; an inconspicuous disk but little thickened; round small red fruit losing their long narrow sepals immediately after ripening; and small smooth shining pericarps. The shoots are usually setigerous next the ground, but rarely so towards the extremities, except in one or two instances.

Obs. *R. alpina* and *acicularis*, of the next division, sometimes have bracteæ, but their sepals never fall off till the fruit is decayed.

9. ROSA nitida. Tab. 2.

R. pumila, armis confertissimis gracilibus, foliolis nitidis angustè lanceolatis planis.

R. nitida *Willd. enum.* 544. *Pursh am. septr.* 1 *n.* 3? *Smith in Rees in l.*

R. rubrispina *Bosc. dict. d'agr. p.* 246?

R. blanda *Pursh! l. c. n.* 1. *et in suppl.*

R. Redutea rubescens *Redout. ros.* 1. 103. *t.* 36.

Hab. in Terra nova, *herb. Banks. (v. v. c. et s. sp. herb. Banks.)*

A low reddish bush. *Branches* erect, much divided, covered all over with very numerous slender *prickles*, unequal in size and interspersed with setæ. *Leaves* very shining, dark green, changing to purple in the autumn; *stipulæ* flattish, naked, fringed with glands, entire or a little toothed, ovate at the end; *petioles*

slender, naked; *leaflets* 3-7, narrow lanceolate, naked, simply serrated, their veins inconspicuous. *Cymes* one or few flowered; *bracteæ* polished, ovato-lanceolate, waved, revolute; *flower-stalks* covered with nearly equal setæ; *tube of the calyx* setose, spherical or nearly so; *sepals* very narrow, shorter than the petals, without setose and downy. *Petals* obcordate, very red and brilliant, concave, nearly erect; *stamens* 100-130; *disk* a little thickened and flattened. *Ovaria* 30-35; *styles* disengaged, villous, included. *Fruit* bright scarlet, depressedly spherical, somewhat hispid.

A pretty little species, with very bright red, cup-shaped flowers, widely different from *R. blanda*, with which Pursh certainly confounded it; for it was from an inspection of this growing in Mr. Sabine's garden that he altered the specific character of *blanda* in his supplement. Possibly he meant something else by *nitida*, but what that was there are unfortunately no materials for determining. It is commonly called the dwarf Labrador Rose in the gardens. Miss Lawrance's *t.* 27 seems to be a miserable figure of this, and yet the learned author of the monograph in Rees's Cyclopædia cites it to *blanda*, following the second edition of Hortus Kewensis. *R. rubrispina* of M. Bosc I have little doubt in referring here; and *R. Redutea rubescens* of Redouté is certainly our plant; what resemblance there can be between it and the original *R. Redutea* I am quite at a loss to discover.

10. ROSA rapa.

R. elatior diffusa, ramulis inermibus, foliolis oblongis undulatis lucidis, fructu hemisphærico.

R. rapa *Bosc. dict. d'agr. Desf. cat. hort. par.* 273. *Poir enc. suppl. Redout. Roses.* 1. 7. *t.* 2. *Promv. nomencl.* 27.

R. turgida *Pers. syn.* 2. 49.

R. fraxinifolia *Dumont-Cours. bot. cult.* fide *Poir.*

Hab. in Americæ septentrionalis provinciis calidioribus *Fraser. (v. v. cult. et s. sp.)*

A taller bush than *R. lucida* with a more straggling habit. *Branches* red, either unarmed, or furnished with a few weak, pale, setiform prickles, now and then decreasing into setæ; *rootshoots* very red, densely covered with very unequal, scattered, crimson prickles: of these the largest are compressed and falcate, as they decrease in size becoming gradually straighter till they change into setæ. *Leaves* distant, tinged with red, which becomes darker in the autumn; *stipulæ* naked, flat, waved, either narrow or much dilated, finely toothed; *petioles* armed with a few short, straight prickles, glands being here and there intermixed; *leaflets* 3-9, simply or doubly serrated, undulated, entirely free from pubescence. *Cymes* many-flowered, overtopped by the young shoots; *bracteæ* ovate lanceolate, with a point, naked, finely toothed, large and spreading; *flowerstalks* rough with setæ and glands: *tube of the calyx* cyathiform, at the bottom rough like the stalks; *sepals* compound, with a foliaceous end, longer than the petals, hispid without; *petals* always multiplied, bright red, smaller than those of *R. lucida*; *disk* nearly obliterated. *Fruit* deep red, crowned by the reflexed sepals, round, with a very wide mouth which is filled up by the densely villous *styles*.

A very handsome species with numerous double red flowers. It was first distinguished by Bosc in the Dictionnaire d'Agriculture, but by some mistake called a native of Scotland, which has been copied by every successive French author. Redouté's figure is of a much greener colour than I have ever seen it in any state. I possess specimens gathered in the Southern states of North America by Mr. J. Fraser, and I am obliged to Mr. Robert Sweet for fine fruit, which is very rarely produced.

This is a plant with which I have been long acquainted, and I can by no means assent to the opinion that it is a variety of *R. lucida*. Doubtless they must be placed next each other in a natural disposition of the genus, but otherwise they are as distinct as species can be. *R. lucida* is a compact bush with dense, stiff leaves, and armed with prickles under the stipulæ; its flowers sit close among the leaves, and the mouth of the fruit is by no means wide; the sepals also converge. This, on the contrary, is a naked straggling brier, with scarcely a vestige of prickles on the shoots; its flowers are on long stalks, the mouth of the fruit is so wide that the fruit itself is nearly hemispherical, and the sepals are reflexed.

11. ROSA lucida.

R. compacta, aculeis ramulorum stipularibus, foliolis oblongis imbricatis planis lucidis, fructu depresso-globoso.

R. carolina fragrans foliis mediotenùs serratis *Dill. elth.* 325. *t.* 245. *f.* 316.

R. rubra lucida *Röss. ros. t.* 7. *& t.* 25. *f.* 1.

R. lucida *Ehr. beitr.* 4. 22. *Willd. sp.* 2. 1068. *Mönch. meth.* 687. *Jacq. fragm.* 71. *t.* 107. *f.* 3. *Pers. syn.* 1. 48. *Pursh! am. septr. n.* 4. *Smith! in Rees in loc. Redouté ros.* 1. 45. *t.* 11.

Hab. in America septentrionali a Noveboraco in Carolinam usque, (Pursh); juxta Boston in aquosis et ad margines paludum, *Bigelow (v. v. c. et s. sp. herb. Smith).*

A compact bush, from four to six feet high; sometimes much smaller. *Branches* erect, reddish brown, shining, with nearly solitary slender prickles under the stipulæ, and a few setæ scattered here and there; the *rootshoots* sometimes very setigerous on their lower half, but like the branches on their upper. *Leaves* very close, spreading irregularly; *stipulæ* without pubescence, flat, shining, rigid, waved, their edge minutely toothed, the teeth sometimes tipped with a gland; *petioles* either naked or a little downy beneath, armed with a few short, stout prickles; *leaflets* nine, ovate-lanceolate, naked on both sides, very near each other, waved, simply and coarsely serrated, very unequal, the lowest pair frequently very small. *Flowers* overtopped by the leaves and the new branchlets, very red, several together; *bracteæ* concave, revolute at the edge, ovate-lanceolate, pointed, naked on both sides, finely toothed, the serratures tipped with a gland; *flower-stalks* nearly naked, not much longer than the

fruit; *tube of the calyx* bristly, depressedly globose; *sepals* simple, ovate with a long point, hairy and bristly on the outside; *petals* obovate, emarginate, a little longer than the sepals; *disk* flattened, not very thick; *receptacle* frequently elevated in the centre; *styles* extremely villous, but little exserted. *Fruit* depressedly globose, nearly naked, bright red.

Not uncommon in gardens, producing its fine red blossoms early in the autumn. The differences between this and the last have been already indicated. From *R. carolina* and *laxa* its shining leaves immediately distinguish it. The learned president of the Linnæan society can scarcely have been well acquainted with the plant before us, or he would not have excluded the reference to Dillenius's figure, which is a good representation of it, nor have quoted Miss Lawrance's *t.* 75, the *R. alpina* β of Aiton, which is undoubtedly Jacquin's *R. blanda* and my *R. fraxinifolia.* Yet fine wild specimens from Bigelow are in his herbarium, and from their ticket it appears that the species is common in marshy situations in North America.

12. ROSA laxa. Tab. 3.

R. diffusa, ramulis vimineis subinermibus, foliolis oblongis undulatis opacis glaucescentibus.

R. carolina ε *Ait. kew. ed. alt.* 3. 260.

R. carolina pimpinellifolia *Andrews's roses?*

Hab. in America septentrionali *(v. v. cult.)*

A spreading shrub with reddish brown, shining, wiry *branches* which have straightish *prickles* under the stipulæ; the *branchlets* are usually unarmed; the *rootshoots* covered all over their lower half with nume-

rous, slender prickles, and a few setæ intermingled. *Leaves* not shining, thickset; *stipules* narrow, broader towards their end, where they are recurved, naked except at the margin, which is glandular; *petioles* downy, reddish-green, furnished with weak prickles, setæ and glands; *leaflets* 7-9, elliptic-lanceolate, glaucous, naked, waved, with inconspicuous veins. *Flowers* rose-coloured, growing usually in pairs; *bracteæ* ovate and fringed, otherwise naked; *flower-stalks* glandular; *tube of the calyx* spherical, armed with some setæ; *sepals* triangular, lanceolate, nearly entire, a little dilated at the end, shorter than the petals, hairy, glandular and setigerous on the outside, especially at the base; *petals* flat; *disk* almost obliterated. *Fruit* unknown.

Frequently cultivated under the name of the spreading Carolina Rose. It is not however with *R. carolina* that it can be confounded, since its whole habit, glaucous leaves, and open stipulæ, permanently distinguish it. *R. lucida* is much more nearly allied to it; they differing chiefly in the following respects, but as it seems sufficiently. The strongest rootshoots of *R. laxa* have scarcely any prickles, its branches are much more spreading and slender, very often unarmed, the leaves never shine and are always remarkable for their glaucous hue; there seems to be no disposition to produce fruit in this, while *R. lucida* bears it abundantly. Their period of flowering is also different; that of *lucida* being in the autumn, of *laxa* early in the summer. I have never seen wild specimens, but there can be no doubt of its native country. It is very uncertain whether Miss Lawrance's spreading Carolina be this or not.

13. ROSA parviflora.

R. pumila, stipulis linearibus: aculeis acicularibus, foliolis lanceolatis glabriusculis argutè serratis, calycibus viscosis.

R. carolina *Du Roi harbk.* 2. 354. *Sm. Insects of Georgia* 1. 49. *t.* 25?

R. humilis *Marsh. Arb.* 136.

R. parviflora *Ehr. beitr.* 4. 21. *Willd. sp.* 2. 1068. *Pers. syn.* 2. 48. *Pursh. am. septr. n.* 2. *Smith in Rees in loc.?*

R. caroliniana *Michaux. boreali-am.* 1. 295.

The Pennsylvanian Rose. *Lawr. Ros. tt.* 3 & 66.

R. carolina γ and δ *Ait. kew. ed. alt.* 3. 260.

Hab. in collium declivibus Noveboraco Carolinæ, (Pursh). *(v. v. cult.)*

A very low, weak, spreading species. *Rootshoots* with a few setæ which quickly disappear; *branches* slender, reddish-brown, armed with a pair of needle-shaped *prickles* under the *stipulæ;* these are quite naked, very narrow, a little incurved, with a small flat extremity which divaricates; *petioles* naked; *leaflets* usually 5, somewhat shining, lanceolate, pointed, simply and finely toothed, their veins inconspicuous, a little hairy on the rib beneath. *Flowers* pale blush usually growing by pairs; *bracteæ* ovate, concave, pointed, somewhat hairy; *peduncles* covered with glands and setæ, like the *tube of the calyx,* which is round and small; *sepals* ovate with a very narrow point, nearly simple, their edge cottony, back clammy and glandular. *Petals* very numerous in the double variety, which is the most common, and which is the only one I have had an opportunity of examining.

The double Pennsylvanian Rose is by far the handsomest of the North American species, and does not

yield in beauty to the most splendid varieties of *gallica*. Its elegant unexpanding blossoms of the most delicate pink and its dwarf compact habit have made it an universal favourite, notwithstanding the difficulty of cultivating and especially of propagating it. I have seen it succeed best in such soil as American plants are in general found to require. Ehrhart, with his usual accuracy, was the first to point out the peculiarities which distinguish it from *R. carolina* and *lucida*. I unfortunately neglected to preserve any notes of the *R. parviflora* from Muhlenberg in Sir James Smith's herbarium; but from his observations I cannot help thinking they must be of *R. lucida*; especially as he quotes Miss Lawrance's figures under *R. carolina*, which would scarcely have been the case had the true plant been before him. And yet the *R. carolina* of Sm. Insects of Georgia is very likely to be this, as was first noticed in Rees's Cyclopædia. I am obliged to M. Achille Richard for an ample description of *R. caroliniana* of Michaux's herbarium, which confirms the propriety of referring it hither. In Mr. Lambert's collection is a garden specimen with almost linear leaves.

14. ROSA Woodsii.

R. stipulis sepalisque conniventibus, foliolis oblongis obtusis glabris.

R. lutea nigra *Promv. nomencl.* 24.

Hab. juxta flumen Missouri Americæ septentrionalis *(v. v. c. hort. Sabine.)*

In honorem cel. Josephi Woods *qui primus veris Rosarum characteribus ad species distinguendas usus est.*

A low shrub with upright, dull, dark branches, having very numerous, straight, slender, scattered

prickles, with a few setæ at their base, the former becoming stipulary towards the extremities; *branchlets* often unarmed. *Leaves* without pubescence; *stipules* very narrow and acute, convolute and fringed with glands; *stalks* armed with straight unequal prickles; *leaflets* 7-9, shaped like those of *R. rubella*, shining, flat, simply serrated, paler beneath. *Flowers* pink, appearing in the spring. *Fruit* naked, ovate, with short, connivent, entire *sepals* which are free from glands as is the peduncle.

As it is scarcely probable that any new British rose will be detected, worthy of bearing the name of Mr. Woods, of whose high merit I have already had occasion to speak, the present species has been selected by Mr. Sabine and myself for that purpose. That it is essentially distinct from every other is very evident even from the incomplete account I have been able to give of it. I first saw it growing in Mr. Sabine's garden at North Mimms late in the month of November; most of the leaves had fallen, but a few heps still remained on the bush. Its habit without foliage bears more resemblance to that of a stunted *cinnamomea* than to any thing else. In character it approaches *R. carolina*, particularly in the remarkable convolution of stipulæ. From this its numerous ramifications, weak prickles and short shining leaves sufficiently distinguish it. It moreover flowers in the spring and has naked fruit with conniving sepals.

I am assured by Mr. Sabine that this is the plant which was sent to France from a nursery here as a new American Rose with black and yellow flowers, and noticed as such in Promville's book.

Said to be a native of the country near the Missouri.

15. ROSA carolina. Tab. 4.

R. stipulis convolutis, foliolis lanceolatis, sepalis patentibus.

R. carolina *Linn! sp.* 703. *Willd. sp.* 2. 1069. *Lawr. Ros. t.* 24? *Ait! kew. ed. alt.* 3. 260. *Pers. syn.* 2. 48. *Pursh! am. septr. n.* 8. *Smith! in Rees in loc. Redout. ros.* 1. 81. *t.* 28.

R. virginiana *Du Roi harbk.* 2. 353. *Rössig. ros. t.* 13.

R. palustris *Marsh. arb.* 135. *Donn! cant. ed.* 8. *p.* 169.

R. corymbosa *Ehr! beit.* 4. 21. *Muhl. cat.* 50.

R. pennsylvanica *Michaux boreali-am.* 1. 296.

R. caroliniana *Big! bost.* 121.

R. hudsoniana *Redout. ros.* 1. 95. *t.* 35.

β. florida, foliis impubibus tenerioribus.

R. florida *Donn! cant. ed.* 8. 169.

R. enneaphylla *Rafin. Schm. précis des découvertes?* quoted in *Desv. journ.* 4. 268.

Hab. in palustribus Novanglia Virginiam usque (Pursh.) *(v. s. sp. & v. cult.)*

From 2 to 8 feet high. *Branches* erect, green or red brown, with twin or solitary straight *prickles* under the stipulæ; the *arms* of the rootshoots are more dense and soon become setæ. *Leaves* opaque; *stipulæ* unusually long, narrow, inflected and folded together except at the end, which is spreading, naked unless at the edge which is toothed and sometimes fringed. *Petioles* downy, and armed with little prickles; *leaflets* 7, lanceolate, finely and simply serrate, above naked, and dark green, becoming discoloured towards the autumn, beneath downy and somewhat glaucous. *Cymes* one or many flowered, appearing after the summer

heats are past; *bracteæ* lanceolate, very concave, pointed, downy at the back; *peduncles* hispid, as is all the *calyx*, of which the *tube* is spherical and usually coloured, the *sepals* entire, with a very long narrow point and cottony edge; *petals* concave or flat, usually longer than the sepals, and deep red, crumpled; *disk* not very apparent; *styles* villous. *Fruit* scarlet, round, hispid, not losing the sepals till it is quite ripe.

Shrubberies are often enlivened, where few other flowers are to be seen, by the copious crimson bloom of this very pretty plant. In its native marshes it is exceedingly variable, in height, size, shape and pubescence of leaves and number of flowers; nor is it much less disposed to sport when cultivated. Its most common state is to be about six feet high with very numerous flowers and rather short peduncles. When the latter are lengthened a little, with a corresponding increase in their number, it becomes the *R. corymbosa* of Ehrhart. If its size is greater and its shoots paler than usual, it is *R. palustris*. An increase of pubescence makes it *R. pennsylvanica*. Sometimes, when the plant is unusually luxuriant, the ends of the shoots have no prickles, and then it is *Rosa hudsoniana*.

Variety β has a diseased appearance, and is easily distinguished by the membranous texture of its leaves and their want of pubescence.

16. ROSA blanda.

R. elatior, armis deciduis, foliolis oblongis planis: petiolo piloso.

R. blanda *β Solander MSS!*

R. blanda *Ait! kew.* 2. 202. *Willd. sp.* 2. 1065. *Smith! in Rees in l.*

Hab. in Americæ septentrionalis ora occidentali, *Menzies.* sinu Hudsonis, *herb. Banks (v. s. sp. herb. Banks & Smith.)*

Branches armed with scattered, pale, unequal, deciduous, straight prickles and setæ. *Leaves* dull; *stipules* large, elliptical, rounded at the end and fringed with glands; *stalks* unarmed, downy; *leaflets* 5-7, lanceolate, or more usually oblong, simply serrated, naked above, downy at the rib beneath. *Flowers* large, red, solitary; *peduncle* and *calyx* unarmed: *tube* roundish; *sepals* ovate, pointed, entire.

Although this has been long cultivated, living plants have never fallen in my way. The specimens from which my description has been drawn up, exist in the Banksian herbarium. From original documents in that invaluable collection, it appears that when the first edition of Hortus Kewensis, in which this was established, was published, Dr. Solander's manuscripts were consulted, who had two different things before him. One of these was *R. fraxinifolia*, which he marks as *R. blanda;* and the other the present species, which he considered a variety. It so happened, however, that the character given in the Hortus Kewensis was of that variety, which has therefore been universally understood as the true plant; and the original *blanda*, figured, I may observe, by Jacquin as such, has almost as generally been known under other names, as will be shown in the next species. No

figure has been published of the plant before us, and on that account I should certainly have given one from dried specimens, had I not thought it better to trust to its again making its appearance in a fresh state, since there is little doubt of its still existing in this country.

I have never seen the prickles red, as they are said to be by Sir James Smith. Possibly he described them from Miss Lawrance's figure, which looks like *R. nitida*.

Mr. Menzies found this on the north-west coast of N. America, and specimens gathered in Hudson's Bay are in the possession of Sir Joseph Banks.

17. ROSA fraxinifolia.

R. elatior inermis, ramis strictis glaucescentibus, foliolis opacis undulatis impubibus.

R. virginiana *Mill. dict. n.* 10.

R. fraxinifolia *Bork. holz.* 301. *Gmel. bad. als.* 2. 413. *Ker in bot. reg. t.* 458.

R. blanda *α Solander! MSS. Jacq. fragm.* 70. *t.* 105.

R. corymbosa *Bosc. dict. d'agr?* *Desf. cat. hort. par.* 272?

R. alpina *β Ait! kew. ed. alt.* 3. 265.

R. alpina lævis *Redout. ros.* 1. 57. *t.* 19. *(Lawr. ros. t.* 75.)

Hab. in Terra nova, *herb. Banks. (v. v. c. et s. sp. herb. Banks.)*

In appearance and size resembling *R. cinnamomea*. *Branches* erect, unarmed, dark purple, covered with a

pale blue, waxen bloom; *rootshoots* with a few weak setiform prickles at their base. *Leaves* opaque, entirely free from pubescence; *stipulæ* broad, much dilated towards the extremities, flat, serrulate; *petioles* unarmed; *leaflets* 5-7, lanceolate, simply serrate, grayish green above, glaucous beneath. *Flowers* small, red, in few flowered cymes; *bracteæ* elliptical, naked, fringed and toothletted; *peduncles* shorter than the leaves; *tube of the calyx* depressedly globose, gray—these last quite naked; *sepals* ovate, entire, with a long point, hispid at the back; *petals* obcordate, somewhat converging; disk not distinct; styles villous. *Fruit* small, round or ovate, dull pale red, naked.

I have already attempted to explain why this, the original *R. blanda*, should not now be distinguished by that appellation. In determining on another for it, I have thought it right to take the oldest, excepting Miller's, for which probably no one will contend. The description of Bosc's *R. corymbosa* answers so closely to this species, that I have few doubts of the propriety of citing it here. So little reason was there to suppose this to be a variety of *R. blanda*, that, in the last edition of the Hortus Kewensis, it has actually been considered not distinct from *R. alpina*.

Gathered in Newfoundland by Sir Joseph Banks.

The want of prickles distinguishes this from most of the section. *R. blanda* when unarmed, as it often is, is readily known by the downy stalks of its leaves. *Cinnamomea* in a similar state may be recognised by the same character, with the addition of the majority of its leaves and its stipules being inflexed at the edge, not reflexed.

18. ROSA cinnamomea. Tab. 5.

R. elatior cinerea, ramis strictis, aculeis stipularibus rectiusculis, stipulis dilatatis undulatis, foliolis oblongis rugosis subtus tomentosis.

α foliolis (ovalibus) obtusis.

R. minor, &c. *Bauh. hist.* 2. 38.

R. cinnamomea *Besl. eyst. vern. ord.* 6. *fol.* 5.

R. cinnamomea *Lin! sp.* 703. *Willd. sp.* 2. 1065. *All. pedem.* 2. 138. *Mönch. meth.* 687. *Lawr. ros. t.* 34. *Bieb. taur. cauc.* 1. 393. *Gmel. bad. als.* 2. 411. *Schranck monac. c. ic. Pohl. bohem.* 2. 170. *Ait! kew. ed. alt.* 3. 259. *Pers. syn.* 1. 47. *Eng. bot! t.* 2388. *Smith! in Rees in l. Rau enum.* 52 α & β. *Woods! in act. linn.* 12. 175. *Redout. ros.* 1. 105. *t.* 37. 133. *t.* 51.

R. fœcundissima *Munch. hausv.* 5. 279. *Du Roi! harb.* 2. 343. *Hoffm. deutsch. fl.* 175. *Brot. lus.* 1. 339. *Fl. dan. t.* 1214. *Roth. germ.* 2. 557.

R. majalis *Herm. diss.* 8. *Desf. atl.?*

β *fluvialis*—foliolis (ovatis) acutis.

R. fluvialis *Fl. dan. t.* 868. *Retz. scand.* 120. *Pers. syn.* 1. 47.

R. arvensis *Linn.* fide *Afzelii.*

Hab. in Dania, (fl. dan.); Belgia (Hoffmann); Lusitania (Brotero); Germania (Roth); Helvetia, *Schleicher, Hooker;* Gallia, *Decand.;* Bohemia (Pohl); Caucaso (Bieb.); β in Dania, (fl. dan.); Helvetia *Hooker (v. v. c. & s. sp.)*

A gray shrub 5 or 6 feet high. *Branches* erect in the single var. more diffuse and weak in the double sort, deep red-brown, usually armed with a pair of strong pale brown, straightish prickles under the sti-

1
2

pulæ; *rootshoots* more densely prickly and setigerous. *Leaves* close together; *stipulæ* broad, rugose, concave, red at the edge and middle and somewhat fringed, a little hairy; *petioles* slender, downy, unarmed; *leaflets* 5, rarely 7, lanceolate, simply serrated, rugose, opaque, smooth and gray above, downy and cæsious beneath, concave in the single, flat in the double plant. *Flowers* solitary, or two and three together, pale or bright red, small, single or double; *bracteæ* large, somewhat downy, rugose, concave, cæsious, tinged with red at the edge and axis; *peduncles*, round; *tube of the calyx*, and *sepals*, quite unarmed; the latter very narrow, longer than the petals, spreading in the flower, converging in the fruit, cottony at the edge; *petals* concave, obcordate; *disk* obscure; *styles* very villous, distinct. *Fruit* round, naked, crimson, covered with a delicate waxen appearance, crowned by the converging sepals.

This, on the authority of a plant found in the wood in Aketon pasture near Pontefract, has been considered a native of Britain, but I fear without sufficient reason. It is common over the greater part of Europe, growing in thickets and flowering early in the spring; but it is much more common in the middle and southern countries than in the northern ones, where it is scarcely found, its place being occupied in those regions by *R. majalis*, a very distinct thing, although hitherto considered only a variety. From this difference in geographical distribution, I suspect *R. majalis* of Desfontaines, found wild in the north of Africa, to be the *cinnamomea*. Linnæus certainly confounded the two, as appears from his herbarium, where they both exist marked with the same name. The plant, however, which he had before him, when the second edition of Species plantarum was written, is unquestionably this *cinnamomea* in a single state from the Upsal garden. The other was added afterwards, and may have been from wild plants in Sweden. Dr. Afzelius, in his first *Tentamen*, gives it as his opinion that the *R. spinosissima* of Linnæus is a sort of *cinnamomea*, not however ex-

plaining which sort he means; but this cannot be, for in Flora Succica, ed. 2, the fruit is expressly said to be black, which is always the case with our *spinosissima* and never with any individual of this division.

The double variety is much more common than the single and has altogether a different aspect; the shoots are not strong and upright, but weak and wiry, and the leaves are flat, not concave. Yet I have no information of this in a single state, and therefore suspect these characters to have some connexion with the monstrosity in the flowers; and possibly the one would disappear with the other.

Mr. Wood rightly observes that *R. cinnamomea* of Roth is *R. lutea bicolor*.

Of *R. fluvialis* of Flora Danica I have specimens collected in Switzerland by Mr. Hooker. It seems to be a smaller plant, the leaves are shorter and the prickles less than in the common sort: the flowers too are of a deeper red. It has small pretensions to be a species; but may possibly be an intermediate state between *R. cinnamomea* and *majalis*, agreeing with the latter in size and shape of leaves, but in every other essential respect with the former.

R. cinnamomea of Hermann is *spinosissima*.

19. ROSA taurica.

R. elatior cinerea, aculeis sparsis debilibus, ramis strictis apicem versus inermibus, foliolis oblongis rugosis subtus villosis, sepalis compositis, stylis porrectis glabriusculis.

R. taurica *Bieb. taur. cauc.* 1. 394. *Poir. enc. bot. suppl.*

Hab. in dumetis Tauriæ, Steven.

With the habit of *R. cinnamomea;* from which it differs in having the *leaves* more villous beneath and less glaucous; the *petioles* armed with numerous little prickles; the *segments of the calyx* shorter, some of them divided at the base; *styles* half as long as the stamens, pubescent only at the base and under the stigmas, otherwise naked; *peduncles* often in pairs, sometimes solitary or three together. The round tube of the calyx and the peduncles smooth; stem armed with recurved prickles. *Bieberstein.*

Native of northern Asia, and only known from the description of Marschall von Bieberstein. It seems, however, well distinguished from its congeners by its compound sepals and exserted, smooth styles.

20. ROSA davurica.

R. elatior ramosissima, ramis tenuibus coloratis, aculeis stipularibus patentissimis subrecurvis, stipulis linearibus, foliolis oblongis rugosis subtus tomentosis altè serratis.

R. davurica *Pall. ross.* 61.

Hab. in Davuriæ et Mongoliæ transalpinæ apricis et betuletis, cum Spiræa chamædrifolia, ubique copiosissima et simul florens Junio (Pall.).

Often five feet high, erect, much branched, with slender, rigid, brownish, smooth *branches*, and stipulary, twin, spreading, a little recurved, grey *prickles*. *Stipules* narrow, toothletted; *petioles* downy, unarmed; *leaflets* 7, nearly equal, lanceolate, entire at the base, the serratures increasing in depth towards the end, some nearly blunt and crenate, others acute, all pubescent beneath. *Peduncles* smooth, involucrated by a leaf and bractea; *sepals* downy at the edge, with a narrow foliaceous end, somewhat longer than the petals. *Petals* deep red, entire, large. *Fruit* red, ovate. *Pallas.*

The specimens in Pallas's herbarium answer by no means to this, but seem to be rather of a variety of *R. reversa*. It must therefore remain in the obscurity in which I find it. Had Pallas given his usual attention to Roses, I should have thought it probable this might be *cinnamomea*, to which it is certainly very near and which he does not mention; although there is no doubt of its growing in the countries he visited. But the characters given above seem sufficient to distinguish it, especially the long spreading prickles and narrow stipules.

21. ROSA aristata.

R. foliis superioribus sub-bijugis, petiolo in spina producto.

R. aristata *Picot Lapeyr. fl. pyr. t.* 105. *Hist.* 285.

Hab. juxta Baréges, (Lapeyr.).

Stem with few prickles. *Petioles* usually unarmed; *leaflets* obovate, oblong, toothed, glaucous and smooth above, woolly beneath; upper leaves with no terminal leaflet, being furnished in its stead with a strong spine, which is the extremity of the footstalk elongated *(and indurated?)*. *Flowers* solitary, purplish; *peduncles, tube of the calyx* which is round, and the *sepals*, hispid; *petals* shorter than the sepals. *Lapeyr. l. c.*

I have not been able to meet with that part of Lapeyrouse's Flora of the Pyrenées in which this Rose is figured. From his description it is *R. cinnamomea* in every respect except having the stalk of the upper leaves lengthened out into a spine. Whatever it be, whether a monstrous or natural appearance, the above character is sufficient to indicate it. Those who have materials must judge.

22. ROSA majalis.

R. humilior cæsia ramis strictis coloratis, aculeis sparsis subæqualibus, stipulis lincaribus, foliolis oblongis planis subtus glaucis tomentosis.

R. majalis *Retz. obs. bot.* 3. 33. *Wahl! lapp.* 141.

R. mutica *Fl. dan. t.* 688.

R. spinosissima *Gorter. ingr.* 78.

R. collincola *Ehr. beitr.* 2. 70.

β canescens, foliis albido-cæsiis.

Hab. in Suecia, *Afz. Swartz;* Lapponia, (Wahl.); Dania, (fl. dan.); *β* in Suecia *Afz. Swartz. (v. v. c. & s. sp.)*

Three or four feet high, very glaucous. *Branches* erect, virgate, with slender, straight prickles, either scattered or under the stipulæ: *rootshoots* beset with very dense, pale, straight, nearly equal prickles and setæ. *Stipulæ* narrow, incurved, naked, with a short end which is sometimes rounded; *petioles* somewhat downy and glandular, with a few weak, pale, straight prickles; *leaflets* usually 7, oval or obovate, obtuse, simply serrated, flat, very smooth, glaucous on both sides but especially beneath, where they are also a little downy. *Flowers* solitary, small, cyathiform, pale red; *bracteæ* solitary, oval, concave, pointed, naked; *peduncle* and *calyx* quite naked: *tube* round, small; *sepals* subsimple, pointed, longer than the *petals:* these emarginate; *disk* obscure; *styles* distinct. *Fruit* orange-red, spherical, naked, crowned by the sepals, which are scarcely longer than itself.

This species is confined to Sweden and Denmark, where it appears to be a very common plant. Its characters are clear and its habit widely different from that of *R. cinnamomea*, with which it has been confounded.

From specimens communicated to Mr. Hooker it appears that Swartz had intended to divide this into three species, which he called *cinnamomea*, *cinerea* and *turbinella*. Their appearance is very similar, nor have I been able to detect sufficient marks of discrimination.

No other figure than that in Flora Danica has been given of this pretty Rose.

23. ROSA macrophylla. Tab. 6.

R. inermis, foliis longissimis, petiolis parcè glandulosis foliolisque lanceolatis subtus lanatis, sepalis angustissimis petalis apiculatis longioribus.

Hab. in Gossam Than *Wallich. (v. s. sp. in herb. Banks.)*

Branches unarmed? reddish brown. *Stipulæ* concave, dilated, falcate, acute, coloured, naked; *petioles* sometimes nine inches long, densely cottony, unarmed, with a few glands immersed in the down; *leaflets* 5-11, lanceolate, flat, veined, simply serrated, the serratures pointed, deep green tinged with purple and naked on the upper surface, white with down on the under. *Bracteæ* tinged with red, of a thin substance, lanceolate, very large and long, nearly entire, naked except the rib, which is hairy on both sides; *peduncles* villous with a few unequal setæ, coloured; *tube of the calyx* oblong, naked; *sepals* very long, narrowly triangular, simple, dilated and toothed at their extremities, hoary with a coloured back; *petals* obovate, with a little point, rather shorter than the sepals, blush coloured; *anthers* oblong, rather large; *disk* very broad, a little elevated at the orifice; *ovaries* 28, very hairy; *styles* pilose, exserted, distinct.

One of the recent acquisitions sent from Gossam Thau to Sir Joseph Banks by Dr. Wallich.

It differs from *R. alpina* in the shape of its stipules and great bracteæ, besides having a great deal of down on its leaves, which are the longest I have ever seen. It can be confounded with nothing else, and may be considered the connecting link between this division and the next.

Div. V. *Pimpinellifoliæ.* Setigeræ armis confertis subconformibus, v. inermes; ebracteatæ (rarissimè bracteatæ). Foliola ovata, v. oblonga. Sepala conniventia, persistentia. Discus subnullus.

This division is essentially different from the last in habit, although in artificial characters it must be confessed they nearly approach each other; and perhaps too nearly. It may however be distinguished by the greater number of leaflets, which vary from 7 to 13 and even 15, instead of from 5 to 7, and are usually ovate, rarely oblong, and never lanceolate; the flowers are universally without bracteæ except in *R. alpina*, *Sabini* and perhaps *marginata*. These having connivent, permanent sepals, cannot be confounded with the preceding nor, on account of their thin disk, with the following division. *R. Woodsii* of the last group differs from its congeners in the shape of its leaves, as does, but in a less degree, *R. cinnamomea* β; but both of them have stipulary prickles, of which there is no instance in the present tribe.

Obs. In all, the pericarps have an uneven surface.

24. ROSA alpina.

R. inermis, fructu elongato pendulo: pedunculo hispido.

R. rubra præcox fl. simplici. *Besl. eyst. vern. ord.* 6. *fol.* 5.

R. alpina *Linn.! sp.* 703. *Jacq.! austr.* 3. 43. *t.* 279. *All. pedem.* 2. 139. *Willd. sp.* 2. 1075. *Lawr. ros. t.* 30. *Decand. fl. fr.* 4. 446. 536. *Pers. syn.* 2. 49. *Ait.! kew. ed. alt.* 3. 265. *Smith! in Rees. in l. Lindley in Bot. reg. t.* 424.

R. rupestris *Crantz. austr.* 85.

R. monspeliaca *Gouan monsp.* 255.

R. n. 1107. *Hall. helv.* 2. 41.

R. inermis *Mill. dict. n.* 6. *Turr. diar. act.* 128.

R. hybrida *Vill. dauph.* 3. 554.

R. lagenaria *Vill. l. c.* 553. *Willd. sp.* 2. 1075. *Smith in Rees in l.*

R. biflora *Krock. siles.* 2. 157.

β *pyrenaica* calycis tubo pedunculoque hispidulis.

R. pyrenaica *Gouan illustr.* 31. *t.* 19. *Willd. sp.* 2. 1076. *Decand. fl. fr.* 4. 446. *Pers. syn.* 2. 49. *Smith in Rees in l.*———alpina *Jacq. schönb.* 4. *t.* 416.

R. hispida *Krock. siles.* 2. 152. *Pohl bohem.* 2. 174.

R. turbinata *Vill. dauph.* 3. 550?

R. alpina δ. *Decand. fl. fr.* 6. 536.

γ *pendulina* foliolis pluribus cauleque coloratis.

R. pendulina *Linn. herb. Ait! kew. ed.* 1. *Willd. sp.* 2. 1076. *Pers. syn.* 2. 49. *(Lawr. ros. t.* 91.) *Ait.! kew. ed. alt.* 3. 265. *Smith! in Rees in l.*

R. alpina pendulina *Redout. ros.* 1. 57. *t.* 17.

δ *pimpinellifolia* omnibus partibus minor.

R. pimpinellifolia *Vill. dauph.* 3. 553.

R. glandulosa *Bellard. in act. taur.* 1790. *p.* 230.

R. pygmæa *Bieb. taur. cauc.* 1. 397 ?

R. pyrenaica β *Smith in Rees in l.*

Hab. in alpibus Austriæ, (Jacq.); Galliæ australis montosis, *Gouan. Decand.;* Silesiæ, (Krocker); Bohemiæ, (Pohl); Delphinatus, (Villars); sed præcipue Helvetiæ copiosissimè *Hooker*; ubi altitudinem 6000 pedum attingit, nec infra 2600 invenitur, (Wahlenb.): in montibus Carpathicis ad Fagi limites, Helvetiæ Abietis (vix ultrà) crescere desinit, (Wahl.). *(v. v. c. et s. sp. comm. cel. Hooker.)*

Seven or eight feet high. *Branches* nearly erect, greenish brown, usually with a glaucous hue, unarmed, or (very rarely) furnished with a few weak prickles at the very base of the rootshoots; and these have been noticed to exist even on the branches. *Stipulæ* narrow, dilated at the end, naked, fringed with glands; *petioles* with scarcely any hairs, densely glandular and setigerous; *leaflets* 5-9, of a thin substance, ovate, acute at each end, doubly and coarsely serrated, naked, the rib beneath sometimes rough with minute prickles. *Flowers* erect, blush coloured, solitary; *peduncles* unarmed, or hispid; *tube of the calyx* smooth or hispid, ovate, very long; *sepals* erect, narrow, simple, with a long point, dilated at the end which extends beyond the petals, on the outside hairy and naked, or rough if the tube be so; *petals* obcordate, concave; *disk* depressed, broad; *styles* villous, distinct. *Fruit* orange-red, oblong or obovate, with a long neck, crowned by the converging sepals, generally pendulous.

I believe most authors are agreed about the greater part of the numerous synonyms adduced to this plant. Its great abundance in the countries where it grows, and the various situations in which it has been found, have led many into the error of forming as many species out of it as it assumes appearances. Thus *R. hybrida* of Villars is chiefly characterized by its entire petals; *lagenaria* of the same author rests upon the authority of a single plant found in the district of Embrun,

among the woods of Boscodon, with longer fruit than usual; and in the *R. biflora* of Krocker not a single character can be discovered for even the pretence of a species. Sir James Smith rightly removes the var. β of the Hortus Kewensis from this, but is unfortunate in the place he assigns it.

My variety β may be known by its hispid fruit. M. Decandolle, who considered it a species in the first part of his Flore Française, has retracted that opinion in his supplement, where it stands as *R. alpina* δ. Jacquin's figure, as usual, is excellent.

Var. γ. Under my next species but one I shall have occasion to notice Linnæus's *Rosa pendulina*. This is the plant of his herbarium and of our gardens. Its coloured leaves and stem, and disposition to produce more leaflets than the common sort, with darker flowers, are not sufficient peculiarities to entitle it to rank as a species. Nor can I perceive how its fruit, being "pendulous, scarlet, smooth and shining, remarkably elongated, beaked and curved," will distinguish it from *R. alpina* of the Alps, as is observed in Rees's Cyclopædia.

From the characters of Villars and Bellardi, it has been generally thought that the *R. pimpinellifolia* of the former and *glandulosa* of the latter were scarcely distinct from *alpina*. This has been already noticed by Sir James Smith, and I have much pleasure in agreeing with him on the propriety of uniting them to the same species as *R. pyrenaica* of Gouan. Decandolle has, however, in his supplementary volume to the Flore Française, separated them widely from that plant, and I know not on what authority, applied to them a description of something evidently belonging to *R. rubiginosa*. *R. pygmæa* of the learned author of Flora Taurico-Caucasica, to which *R. alpina* of some index of Pallas is quoted, appears to be either the dwarf mountain state of that species or a variety of *rubella*, on account of his describing the "*summi ramuli floriferi hispiduli*." However this may be, I cannot doubt the *alpina* of Pallas's Flora Rossica belonging to the next species.

25. ROSA rubella.

R. armis confertis æqualibus, fructu elongato pendulo.

R. pendula *Roth. germ.* 2. 561.

R. alpina *Pall. ross.* 61.

R. rubella *Eng! bot. t.* 2521. *Smith! in Rees in l. Woods! in act. linn.* 12. 177.

R. polyphylla *Willd. enum. suppl.* 37.

β *melanocarpa* fructu nigro-fusco breviore.

Hab. in Anglia, *Smith, Winch;* Germania, (Roth); Sibiria copiosè ab Uralensi jugo usque in Davuriam: in campis Isetensibus: ad Obum, Irtin et Jeniscam, (Pallas). *(v. v. c. et s. sp.)*

Branches erect, reddish, 3 or 4 feet high, covered all over as far as the extremities with nearly equal weak setæ and prickles. *Stipulæ* dilated towards their extremities, eroded at the edge and fringed with glands, naked; *petioles* sparingly glandular, without hairs, as are the *leaflets*, which are 7-11, almost flat, oval, pointed, simply serrated, or nearly so, dark green above, paler beneath. *Flowers* solitary without bracteæ, pale or deep red; *peduncles* hispid; *tube of the calyx* less so; *sepals* erect, entire, rough, shorter than the *petals*, which are concave and emarginate; *disk* not thickened. *Fruit* pendulous, long, ovate, scarlet, crowned by the converging, shorter sepals.

This is probably one of the things confounded by Linnæus under the name of *pendulina*. Of Dr. Roth's synonym there can be no doubt, as there is no other European Rose any way answering to his character. I am also persuaded that Pallas had this chiefly in view when describing his *R. alpina*, although it is possible he had the true plant in contemplation also. Speaking of it he says, it varies according to situation with

smooth and prickly stems and petioles; the prickles being capillary but dense; all which answers well enough to *rubella*, but by no means to *alpina*. Thus, if my conjectures be correct, it was noticed long before it was discovered in England and published in English Botany as new, but with a very erroneous account of it. What is said in Rees's Cyclopædia about the inflexed calyx is equally applicable to *R. spinosissima*; and I fear the observation of Mr. Backhouse, that the leaves fold together at night, must have originated in mistake, as I never have been able to discover such a disposition in any of the genus, although I have repeatedly watched for it.

Mr. Woods first remarked that the stems and branches covered with setæ, intermixed with a very few aculei, sufficiently distinguish it from *R. spinosissima*. To this I must add the long red pendulous fruit, which that gentleman had not seen. From *R. stricta* it is more difficult to discriminate it. Their principal differential characters I shall notice under that species.

R. polyphylla of the supplement to *Willdenow's enumeratio*, for an opportunity of consulting which I am obliged to my friend Mr. Ker, appears to differ in no respect from this, and the *R. suavis* of the same work seems equally referable to my *R. stricta*.

Variety β is just intermediate between *R. rubella* and *spinosissima*. I procured it from Mr. Lee's nursery, under the name of *rubella*.

26. ROSA stricta. Tab. 7.

R. ramosissima, ramulis inermibus, fructu elongato pendulo.

R. sanguisorbæ majoris folio, fructu longo pendulo ex nova anglia *Dill. elth.* 325. *t.* 245. *f.* 317.

R. virginiana *Herm. diss.* 19?

R. pendulina *Linn. sp.* 705.

R. stricta *Muhl. cat.* 50.

R. carolina ξ *Ait. kew. ed. alt.* 3. 260. *Lawr. ros. t.* 36. (pessima).

R. suavis *Willd. enum. suppl.* 37?

Hab. in Americæ septentrionalis Novanglia, (Dillenius); Pennsylvania, (Muhl.). *(v. v. c.)*

Branches erect, three or four feet high, pale green, covered all over with small, weak, nearly equal setæ, except at the extremities, which are unarmed, like the very numerous, slender branchlets. *Leaflets* 9-11, roundish, of a firm texture, the lowest pair smaller than the rest, glaucous. *Flowers* bright red. *Fruit* before maturity speckled with little pale spots. Otherwise with the characters of *R. rubella.*

Notwithstanding the close resemblance between this and the foregoing, I feel no hesitation in distinguishing them. *R. rubella* has drooping very weak branches, surculi bending at the end, and hispid to their extreme points; its leaves are green, fruit small, ovaria from 12 to 18, pericarps ovate and somewhat pointed. *R. stricta,* on the contrary, has nearly erect branches and surculi and branchlets without any hispidity: its leaves are somewhat glaucous, fruit large and, before ripeness, covered with little pale blotches: the ovaries are from 25 to 35, and the pericarps are round, large, and much more hairy. *Rubella* frequently

VI.

has aculei, *stricta* never. It may be urged that I have in other instances rejected much better characters as insufficient to distinguish species; and with apparent reason. But when it is remembered that there is no instance of a North American Rose being found in Europe, and that this must form an exception, if it be deemed not distinct from *rubella*, I shall have the important difference in geographical distribution in my favour.

It has been known in this country ever since the days of Dillenius, who raised it in Sherard's garden from seeds received from New England, and published a figure of it in the splendid *Hortus Elthamensis*. From not attending sufficiently to his description, much confusion has arisen in its history, since his figure has been cited by every one to a variety of a different species, probably the offspring of cultivation; and thus my *R. alpina* γ has been pronounced a North American plant, to the great perplexity of botanists of that country, who have long sought for it in vain. To explain how this has originated, it becomes necessary to trace the history of the plant from its source.

The specimen of *R. pendulina* in the herbarium of Linnæus belongs decidedly, as I have observed already, to the plant always known under that name in our gardens. It is the end of a branchlet and not unlike Dillenius's figure. It does not appear from what quarter he received it, and may therefore have been known to him only in a dried state, which will sufficiently explain the cause of his error in quoting the *Hortus Elthamensis*. In the first edition of *Species Plantarum* the specific phrase of *R. pendulina* is "fructibus oblongis pendulis," which served to distinguish it from the rest of his species, because he was not then acquainted with *R. alpina*. But before the second edition appeared he acquired this last plant, and then it became necessary to alter the character of *pendulina* to "germinibus ovatis glabris, pedunculis caulcq. hispidis, petiolis inermibus, fructibus pendulis;" which proves beyond a doubt that he held the "stipites innumeris

spinis tenuibus et innoxiis deorsum flexis horridi" of Dillenius, which are not found on the *R. pendulina* of Aiton, to be essential to his species. In this state he left it. In the first edition of Hortus Kewensis the definition is altered to "inermis, germinibus oblongis, pedunculis petiolisque hispidis, caule ramisque glabris, fructibus pendulis," clearly intended for the *pendulina* of our gardens. From what cause this change was made I cannot conjecture, for Dr. Solander, whose manuscripts were certainly used in the genus, was well aware of its not being the plant of Linnæus. Here, however, the mistake originated, and the justly high authority of that excellent work has undoubtedly prevented its being sooner detected.

27. ROSA acicularis. Tab. 8.

R. elatior, aculeis acicularibus inæqualibus, foliolis glaucis rugosis convexiusculis, fructu obampullaceo cernuo.

Hab. in Sibiria *Bell.* (v. v. c.)

About eight feet high, compact. *Branches* erect, the younger glaucous, the adult ones brownish, clothed with unequal, very slender straight prickles and a few setæ. *Leaves* dense, opaque, very glaucous; *stipulæ* narrow, without hairs, fringed with glands, a little dilated at the end; *petioles* pale green, naked, or a little hairy, slender, with very long joints; *leaflets* about 7, of a very thin texture, oval, convex, a little rugose, simply serrated, the teeth diverging, nearly without hairiness, very cæsious on their under side. *Flowers* solitary, pale blush, fragrant; *bracteæ* ovate, convex, naked, shorter than the naked peduncle; *tube of the*

calyx naked, elliptical; *sepals* very narrow, somewhat divided, hairy, thrice as long as the tube; *petals* obovate, emarginate, spreading, shorter than the sepals; *disk* broad, a little elevated; *styles* hairy, distinct, their ends exserted and spreading. *Fruit* obovate, with a neck, yellowish orange, naked, somewhat oblique, crowned with the connivent sepals, which are thickened at their base.

An interesting addition to the *spinosissima* tribe, introduced from Siberia by Mr. Bell. From plants communicated by the late Mr. Donn to Mr. Sabine, it appears to be the *R. kamchatica* of his *Hortus Cantabrigiensis*. From the three preceding species inequality of prickles distinguish it; it is readily known from the rest by its greater size and glaucous, rugose leaves. In the former respect it is surpassed, indeed, by *R. Sabini*, but the strong prickles of that plant, which are falcate when mixed with setæ, and pugioniform when without them, make it impossible that they should be confounded, not to mention their entire dissimilarity in other respects.

It is the first Rose that comes into leaf, and at that period is remarkable for the yellow, as it were blanched, colour of the nascent leaves.

28. ROSA sulphurea.

R. stipulis linearibus apice dilatatis divaricatis, foliolis glaucis planiusculis, tubo hemisphærico.

R. flava pleno flore *Clus. cur. post.* 6.

R. lutea maxima fl. pl. *Besl. eyst. vern. ord.* 6. *fol.* 2.

R. lutea multiplex *Park. parad.* 417. *n.* 17. *t.* 415. *f.* 6. *Ger. emac.* 1267.

R. lutea flore pleno *Raü hist.* 1475. *n.* 31.

R. hemisphærica *Herm. diss.* 18.

R. glaucophylla *Ehr. beitr.* 2. 69.

R. sulphurea *Ait. kew.* 2. 201. *Willd. sp.* 2. 1065. *Lawr. ros. t.* 77. *Pers. syn.* 1. 47. *Gmel. bad. als.* 2. 404. *Ker regist. n.* 46. *Smith in Rees in l. Redout. ros.* 1. 29. *t.* 3.

R. lutea *Brot. lusit.* 1. 337.

Hab. verosimiliter in Oriente (Clusius). *(v. v. c.)*

About four or five feet high, chiefly leafy at the extremities. *Branches* yellowish green, or brownish, beset with unequal, scattered, pale prickles and setæ; of the former the largest are falcate and the others weak and nearly straight. *Leaves* of a dull glaucous green; *stipulæ* narrow, flat, dilated, spreading, and coarsely serrated at the extremities, quite free from pubescence, as is every part of the leaf; *petioles* somewhat glandular, with a few pale, straight prickles; *leaflets* 7, obovate, flat, simply toothed, very cæsious beneath. *Flowers* very large, of an exquisitely delicate, transparent yellow colour, always double; *bracteæ* none; *peduncle* and *calyx* either naked or glandular; *tube* hemisphærical.

This, by far the most splendid of the genus, has never been heard of in a single state, nor even near it;

... y 17th February 1824.

and its native country is still unknown. The earliest information we have of it is from Clusius, who was first acquainted with its existence from the inspection of little, artificial, paper gardens, ornamented with shrubs of different sorts, among which were double yellow Roses. These, he ascertained, were brought from Constantinople, and by means of some of his numerous correspondents he quickly procured living plants, which were probably the parents of those cultivated at this day. Linnæus must have been unacquainted with this when he thought the yellow Rose the same as the Sweet Briar.

Considerable difficulty is always experienced in making this expand or even produce its magnificent blossoms. I am informed by Sir Joseph Banks that he has had it growing and flowering with the greatest luxuriance when planted in the soil of a marsh. The fine specimen from which Sydenham Edwards's excellent figure in the Register was taken, came from Oxfordshire; and in such perfection was it, that a bud was taken to one of the theatres by a lady and it opened in her bosom in the course of the evening.

29. ROSA lutescens. Tab. 9.

R. armis ramorum confertissimis inæqualibus gracilibus reflexis, ramulorum minimis subæqualibus, foliolis planis impubibus simpliciter serratis.

R. hispida *Curt. mag. t.* 1570. (mala).

R. lutescens *Pursh. am. septr. vol.* 2. *in suppl.*

Hab. verosimiliter in Sibiria (*v. v. c.*)

A tall, stout, dark shrub. *Branches* erect, nearly straight, dull brown, defended by innumerable very

slender, unequal, pale brown, deflexed prickles and an almost equal number of setæ; *branchlets* without prickles, but rough with glands and hairs. *Leaves* dense, dark green, discoloured in the autumn, quite free from pubescence; *stipulæ* very narrow, flat; *petioles* unarmed; *leaflets* 7-9, oval, flat, simply serrated. *Flowers* pale yellow, solitary; *bracteæ* none; *peduncles* and *calyx* naked; *tube* ovate, much shorter than the *sepals*, which are entire; *disk* not elevated; *ovaries* about 30; *styles* villous, distinct. *Fruit* large, ovate, black, with a fleshy stalk, crowned by the connivent, short sepals; *pericarps* large, crimson, rugged.

Pursh was led into the error of including this in his North American Flora from its being known in the nurseries under the name of the Yellow American Rose, for which there does not appear to be any authority. I am much rather disposed to agree with the learned editor of the Botanical Magazine, in considering it a native of Siberia, with plants of which country its habit certainly agrees, and not at all with those of N. America. It appears to have been raised at Chelsea by Mr. Fairbairn, and from the original, still there, the plants of the gardens have most likely originated. I may hope to be pardoned for preferring, for so obscure a plant, the best of two names, although not the oldest.

It is very distinct from *R. spinosissima* in its whole appearance, especially in its stout, straight rootshoots covered all over with bristle-shaped, dense prickles, and in the purple colour of its leaves in the autumn. The flowering shoots offer an excellent discriminative character, as they differ entirely from the branches in their arms, which are little more than tubercles tipped with a weak bristle, so that they might without much impropriety be considered rudiments of or imperfectly formed prickles. The peculiarity, however, is constant.

30. ROSA viminea.

R. ramis vimineis, armis setaceis confertissimis rectis patentibus inæqualibus, foliolis membranaceis planis impubibus simpliciter serratis.

Hab.———in horto quodam academico legit *P. S. Pallas. (v. s. c. herb. Lambert.)*

Branches long, very slender and wiry, quite unlike those of *R. spinosissima*, armed with very dense, setaceous, spreading, straight, unequal prickles and a few setæ. *Leaves* very long; *stipules* dilated at the end and somewhat falcate; *leaflets* 5-7, oblong, simply serrated, of a membranaceous texture; *petioles*, *peduncle* and *calyx* naked; *tube* ovate; *flowers* very large.

For this I am indebted to the liberality of A. B. Lambert, Esq. who received it with the rest of Pallas's splendid herbarium. Its native country is unknown. From the ticket attached to the specimens, which is scarcely legible, it seems to have been obtained from some Botanic garden. It can be confounded with nothing but *spinosissima* or *lutescens*, from which its long, weak, wiry shoots, clothed with very dense, setaceous prickles distinguish it. I know no other Rose with such an habit. Had it been caused by the plant growing in a shady close place, the shoots would not have been covered with such dense arms, and the leaves would have been further asunder. Its membranous foliage will prevent any variety of *R. spinosissima* being mistaken for it, whose texture is always very firm and rigid. Luxuriant shoots of the latter have very strong, usually falcate prickles; weak ones have none.

31. ROSA spinosissima.

R. armis inæqualibus, foliolis planis impubibus simpliciter serratis.

R. dumensis. *Dodon. stirp. hist.* 187. *t.* 3.

Cynorrhodi species, &c. *Thal. sylv. herc.* 35.

R. campestris odora. *Clus. hist.* 1. 116.

R. præcox spinosa fl. alb. *Besl. eyst. vern. ord.* 6. *fol.* 5.

R. campestris, &c. *Bauh. pin.* 483.

R. pimpinellæ folio *Ger. em.* 1270.

R. pumila spinosissima, &c. *J. Bauh. hist.* 2. 40. 2. *Raü hist.* 1472. *n.* 15. *syn.* 455.

α pumila, armis horizontalibus, fructu ovato.

* *pedunculo glanduloso v. setoso.*

R. spinosissima *Linn! fl. suec.* 442. *sp. pl.* 491. *ed.* 2. 705. *Herm. diss.* 1762. *Roth. germ.* 1. 217. 2. 555. *Willd. sp.* 2. 1067. *Pers. syn.* 2. 48. *Bieb. taur. cauc.* 2. 395.

R. cinnamomea *Herm. diss.* 7 ?

R. n. 1106. *Hall. helv.* 240.

R. chamærhodon *Vill. dauph.* 3. 555.

R. pimpinellifolia β. *Redout. ros.* 1. 119. *t.* 44.

* *pedunculo nudo.*

R. spinosissima *Fl. dan. t.* 398. *Huds. angl.* 218. *Bull. par. t.* 277. *All. pedem.* 2. 138. *Lawr. ros. tt.* 18. 48. *Smith! britt.* 2. 537. *Eng! bot. t.* 167. *Aiton! kew.* 3. 259. *Smith! in Rees in l. Woods! in act. linn.* 12. 178.

R. pimpinellifolia *Linn! syst. nat. ed.* 10. 1062. *sp. pl.* 703. *Mönch. meth.* 687. *Rössig. ros. t.* 9. *t.* 25. *f.* 2. *Decand. fl. fr.* 4. 438. *Gmel. bad. als.* 2. 415. *Jacq. fragm.* 71. *t.* 107. *f.* 1. *Redout. ros.* 1. 83. *t.* 29, 85. *t.* 30.

R. scotica *Mill. dict. n.* 5.

R. collina *Schrank baiers. fl. n.* 774. fide *Rau.*

β *reversa,* pumila, armis gracillimis: inferioribus deflexis, fructu ovato.

R. spinosissima *Jacq. fragm.* 79. *t.* 124?——nana *Andrews's roses ?*——reversa *Lindl. in bot. reg. t.* 431.

γ *platycarpa,* pumila, fructu depresso et pedunculo setoso.

δ *pilosa,* pumila, foliis acutis infra pilosis.

ε *turbinata,* pumila, fructu turbinato.

ζ *Pallasii,* elatior, armis subæqualibus confertis.

R. pimpinellifolia *Pall! ross.* 62. *t.* 75. ε *Redout. ros.* 1. 84.

R. altaica *Willd. enum.* 543.

η *rossica,* elatior, aculeis longis gracillimis.

ϑ *islandica,* elatior, aculeis maximis falcatis.

R. hibernica *Hooker! Iceland. in app.*

ι *sanguisorbifolia,* elatior, foliolis 9-11 oblongis, fructu depresso-globoso.

R. sanguisorbifolia *Donn! cant. ed.* 8. 169.

Hab. α in montosis maritimisq. totius Europæ copiosè; etiam in Caucaso, (Bieberstein); γ, δ, ε Hibernia, *Hooker;* ζ Rossia, *Pallas;* Caucaso, (Bieb.); η Rossia, *Pallas;* ϑ Islandia, *Hooker; (v. v. c. & s. sp.* ζ *herb. Banks,* η *herb. Smith,* ϑ *herb. Hooker.)*

Obs. species quoad magnitudinem, fructuum superficiem et pedunculorum mirè varians. Rami nunc subinermes, tortuosi, aut stricti, nunc graciles, aculeatissimi; quo juniores, eo armatiores. Varietas ϑ facie diversissima est.

A dwarf, compact, dark (sometimes reddish) green bush, with creèping roots. *Branches* short, stiff, much divided, beset by very dense, unequal *prickles* and *setæ;* some of the former being usually falcate. *Leaves* close together, quite free from pubescence; *stipulæ* either narrow or dilated, of nearly equal breadth; *pe-*

LIBRARY
UNIVERSITY OF ILLINOIS

tioles setigerous and prickly; *leaflets* about 7, bright green, flat, simply serrated, orbicular or nearly so. *Flowers* solitary, without bracteæ, cyathiform, blush coloured; *peduncles* naked, or rough with glands and setæ, as are the *sepals*, which are short and entire; *tube* ovate or nearly round, naked; *petals* emarginate, concave; *disk* not thickened; *styles* villous, distinct. *Fruit* ovate or nearly round, black or dark purple, crowned by the connivent or somewhat spreading sepals.

I have already given my reasons for differing from Afzelius as to the propriety of considering the "*R. spinosissima* Linnæi prima et vera" to be *R. cinnamomea*. And I am equally unable to agree with Mr. Woods, that the *pimpinellifolia* of the Linnæan herbarium resembles *R. rubella*. On the contrary, I do not hesitate to pronounce it, as Sir James Smith has done long ago, indisputably my *R. spinosissima* α. The work of Schrank cited for *R. collina* of that author I have been unable to examine, and therefore depend upon Rau for its accuracy. *R. spinosissima* of Gorter seems to be a *cinnamomea*; whilst the plant called by the last name by Hermann must be *spinosissima*, on account of its orbicular leaves and rough peduncles. The figures of Bulliard and Flora Danica represent a very weak state of it.

This can be confounded only with *R. viminea* and *grandiflora*; from the first its stout, straight shoots and strong prickles, and from the last the presence of numerous setæ among the prickles of the branchlets, distinguish it.

β has the arms of the stem slender and reversed; its leaves are very glaucous, and in the spring it is covered all over with a profusion of snow-white flowers. Possibly it may have some pretensions to be a species. Its native country is unknown; unless the *spinosissima* of Jacquin, found wild in Austria and figured in his *Fragmenta*, should be the same; but the prickles are horizontal. Otherwise they are much alike.

Varieties *platycarpa*, *pilosa* and *turbinata* are only

known from specimens collected in Ireland by my friend Mr. Hooker. Their characters sufficiently indicate their particular differences. *Pilosa* can only be distinguished from *involuta* by the simple serratures of its leaves. It is very different nevertheless.

Pallasii grows in elevated plains and exposed precipices from the Northern part of the Altaic mountains, extending through Siberia. Its more robust habit and the approach to equal size in its prickles are its chief features.

Rossica has exceedingly long slender prickles; it exists in the extensive herbarium of Sir James Smith.

Islandica is the only Rose found in Iceland; its strong vigorous shoots led Mr. Hooker into the error of considering it *Hibernica*, which I believe has never been discovered out of the neighbourhood of Belfast, where it was first detected.

Sanguisorbifolia has a different appearance from the rest. Its peduncles are very short, and its leaflets unusually numerous. Native country unknown.

32. ROSA grandiflora.

R. setis ramorum nullis, aculeis subæqualibus distantibus, foliolis planis impubibus simpliciter serratis.

R. pimpinellifolia *Bieb. taur. cauc.* 2. 394?

Hab. in Sibiria, *Hort.*; in Caucasi subalpini collibus sterilibus? (Bieb.) *(v. s. c. herb. Lyell, Sabine.)*

It is chiefly at the suggestion of Mr. Sabine that I have been induced to distinguish this from *R. spinosissima*. They differ nearly in the same way as *R. involuta* and *Sabini*, except that the latter is much more

gigantic even in its variety β than the present plant. The chief points of difference between the latter and *spinosissima* are its larger flowers and want of setæ among the prickles of the branchlets; characters which appear to be constant here, although I have not admitted them in uniting *Sabini* and *Doniana*. However this may be, it is too remarkable a plant to escape notice, and if it should hereafter be reduced to *spinosissima*, it must stand as a distinct variety. I have little doubt, from Bieberstein's account, that his *R. pimpinellifolia* is this, especially as he divides it from *spinosissima*, which so accurate an observer would scarcely have done unless his plants had actually been different.

Native of Siberia.

33. ROSA nankinensis.

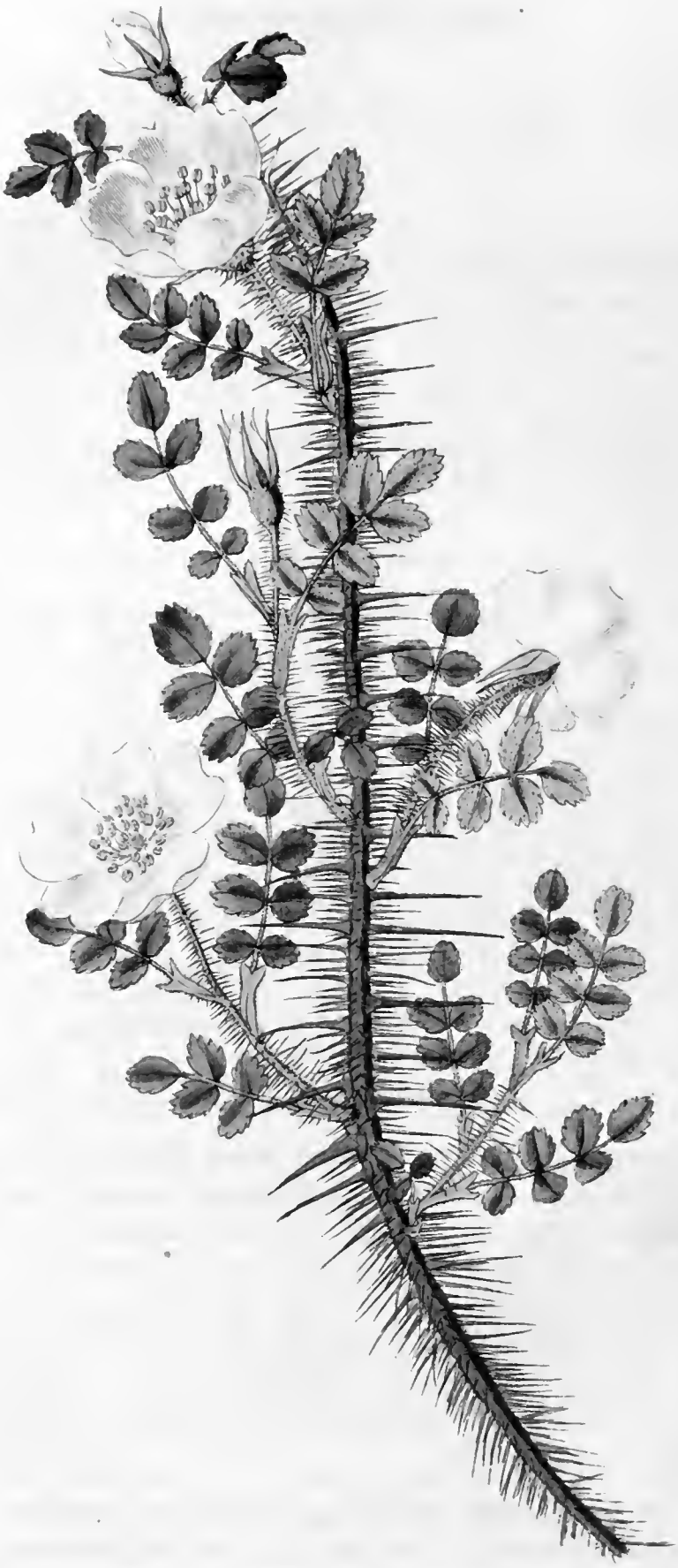
R. pumila ramosissima, armis confertissimis, foliolis acuminatis ciliato-serratis, sepalis aculeatis, petalis apiculatis.

R. nankinensis *Lour. coch.* 324.

Hab. Cantone Sinarum et alibi, a Nankino oriunda. (Lour.)

Stems shrubby, stout, very much branched, six inches long, prickly all over. *Petioles* prickly; *leaflets* in three pairs with an odd one, ovate-oblong, acuminate, ciliato-serrate, flat, sessile. *Flowers* pale red, small, double; *petals* ovate-oblong, somewhat acuminate, flat; *peduncles* hispid. *Tube of the calyx* ovate, smooth: *sepals* partly prickly, partly naked. *Fruit* neither large nor pyriform. *Lour.*

Known only from Loureiro. It appears to be allied to the last species, differing in having acuminate leaflets and prickly sepals. Can it be a congener of *R. Lawranceana?*



34. ROSA myriacantha. Tab. 10.

R. armis inæqualibus: majoribus pugioniformibus, foliis glandulosis impubibus orbiculatis.

R. parvifolia *Pall. ross.* 62?

R. provincialis *Bieb. taur. cauc.* 1. 396?

R. myriacantha *Decand. fl. fr.* 4. 439.

Hab. in Ossetiæ dumetis? Pallas; Delphinatu, *D. C.*; juxta Monspelium, *Requien (v. s. sp. herb. Hooker. Lambert.)*

A little stunted shrub with almost simple erect *shoots*; which are brownish and defended by dense, slender, unequal, straight *prickles* and setæ. *Leaves* chiefly about the ends of the shoots, without pubescence; *stipules* narrow, glandular at the back; *petioles* glandular and setigerous, now and then furnished with a few little straight prickles; *leaflets* 5-7, elliptical or orbicular, doubly serrated, beneath rusty with glands. *Flowers* solitary, cup-shaped, small, among the leaves, without bracteæ; *peduncle* and *calyx* densely clothed with glands and setæ, except the upper part of the globose *tube*; *sepals* reflexed after flowering, longer than the unripe fruit; *disk* a little elevated: the protruding ends of the styles and stigmas not very hairy.

This little plant has hitherto been found only in the south of France, unless the synonym quoted from Pallas belongs to it. However, his account is too incomplete to enable us to determine it satisfactorily; and the very different habitats of the two will probably be considered a material objection. It resembles in many respects *R. spinosissima* in a stunted state. The glands on its leaves appear sufficient to prevent their being mistaken for each other.

R. provincialis of Bieberstein answers precisely to this, and confirms me in supposing that the synonym of Pallas belongs to it.

35. ROSA involuta.

R. armis valde inæqualibus confertissimis, foliolis duplò serratis pubescentibus, petalis convolutis, fructu aculeato.

R. spinosissima *Mönch meth.* 687?

R. involuta *Eng! bot. t.* 2068. *Ait. kew. ed. alt.* 3. 260. *Smith! in Rees in l. Woods! in act. linn.* 12.

R. nivalis *Donn. cant. ed.* 8. 170.

Hab. in montibus Scotiæ, *Walker. (v. v. c. & s. sp.)*

Two or three feet high, compact, reddish gray. *Branches* not much divided, erect, with very strong, dense, unequal, straight prickles and setæ and a cracked bark. *Leaves* close together with a slight turpentine smell when bruised; *stipulæ* narrow, somewhat concave, acute, naked, but toothletted and fringed with glands; *petioles* hairy, glandular and setigerous, a few straight longer prickles being interspersed; *leaflets* 5-7, concave, ovate, acute or obtuse, doubly serrated, naked above or nearly so and opaque, villous beneath with a few pale glands, scarcely distinguishable from the surface. *Flowers* solitary, without bracteæ, red and white; *peduncle*, spherical *tube of the calyx* and simple *sepals* bristly all over with pungent setæ and clammy glands; *petals* obcordate, involute; *disk* a very little elevated; unripe fruit crowned by the converging sepals.

For the discovery of this the world is indebted to Dr. Walker, who found it in the highlands of Scotland, nor does it appear to have been observed elsewhere. At least all the specimens I have seen from other quarters marked *R. involuta* were decidedly either *Sabini* or its variety *Doniana*. From these it is not very easy to point out characters which will distinguish it in a dried state. When growing, their appearance is

exceedingly dissimilar. *R. involuta* is a little dark bush, with involute petals and very dense prickles; its leaves usually naked or nearly so on their upper surface, and its fruit never ripening in a cultivated state. *R. Sabini* is, on the contrary, a tall plant from 5 to 10 feet high. When its prickles are mixed with setæ the largest of the former are falcate; when there are no setæ, they are straight. The leaves are hairy on both sides, sometimes hoary, and the fruit usually comes to perfection in the gardens.

36. ROSA reversa.

R. armis setaceis subæqualibus reflexis, foliolis duplicato-serratis pubescentibus, fructu hispido.

R. reversa *Waldst. & Kitaib. hung.* 3. 293. *t.* 264.

Hab. locis saxosis montium Matræ, (W. & K.)

A shrub in its wild state two or three, in a cultivated five feet high and more. *Stems* much branched, on their lower half covered with weak, brown, equal, deflexed prickles (setæ?) *Leaves* pale, yellow green; *petioles* furnished with setæ; *leaflets* ovate, acute, finely and doubly serrated, naked above, downy beneath: the middle nerve is glandular. *Flowers* solitary, white tinged with pink; *stalks* and *calyx* hispid; *tube* ovate; *sepals* nearly entire; *petals* emarginate concave. *Fruit* ovate, dark purple, hispid, crowned by the sepals. W. & K.

This was discovered in Hungary by Waldstein and Kitaibel, who published a good figure of it in their fine work on the rare plants of that country. It seems, as far as can be ascertained from their account of it, to be related to *R. spinosissima* on the one hand and to *invo-*

lutâ on the other. From the former its doubly serrated leaves and hispid fruit distinguish it, from the latter its equal small prickles and black fruit. The figure indicates a tendency of the petals to become involute; but I know not whether it can be depended upon in such a case.

Among the plants of Sievers from Pallas now in the possession of Mr. Lambert are specimens of a Rose from Davuria marked *R. davurica;* but probably by accident, as they in no way answer to the description of that plant in Flora Rossica. If they be not of a distinct species, they must be referred to this, from which they chiefly differ in the colour of their fruit, which is not black, but red and smooth, in an unripe state.

37. ROSA marginata.

R. pumila, ramis tortuosis junioribus pruinosis, foliolis ovatis cordatis triplo serratis glaberrimis, sepalis muricatis.

R. marginata *Wallr. an. bot.* 68.

Hab. in agrorum versuris sinistrorsùm a Bennstädt (Wallr.).

A tortuous shrub 1-2 feet high, below protected by a few prickles, above covered over by very dense straight ones; *branches* much divided, purple: the *branchlets* frosted. *Stipulæ* and *petioles* smooth, glandular; *leaflets* ovate oblong, cordate at the base, of a firm texture, above shining, deep green, very smooth on both sides, thrice serrated, serratures edged with red and glandular. *Peduncles* hispid with glands; *tube of the calyx* spherical, coloured, very smooth; *sepals* nearly entire, dilated at the end, almost muricated

with glands. *Petals* blush-coloured, with yellow claws and no scent. *Fruit* purplish. *Wallr. l. c.*

Differs from *R. canina* in having a dwarf stem in every state; the prickles being straight, subulate and copious; the petioles and stipulæ glandular; leaflets somewhat coriaceous, ovate-oblong with a cordate base, thrice serrate and glandular, of a glaucous red; flowers without scent; peduncles and sepals constantly bristly with glands; fruit ovato-globose, turgid and coloured. *Wallroth.*

From this description *R. marginata* should be a very excellent species. But I nevertheless have some fear that it may prove to be too nearly allied to *R. rubiginosa*, if they even be distinct. No one appears to have seen it except Wallroth, who undoubtedly may be depended upon for accuracy in describing the leaflets as cordate; the only instance of that form in the genus.

38. ROSA Sabini.

R. setis raris aculeisq. inæqualibus distantibus, foliolis duplò serratis tomentosis, sepalis compositis.

R. Sabini *Woods! in act. linn.* 12. 188.

R. involuta *Winch! ess. geogr.* 41.

β *Doniana*, setis subnullis, aculeis rectiusculis.

R. Doniana *Woods! l. c.* 12. 185.

Hab. in Britannia septentrionali; β etiam in Sussexiâ *Borrer* (v. v. c. & s. sp.)

Shrub 8-10 feet high. *Branches* erect, stout, dark brown, armed with distant falcate prickles and a few setæ. *Leaves* grey, distant; *stipulæ* narrow, fringed with glands; *petioles* downy, glandular, armed with

little prickles; *leaflets* 5-7, oval, doubly serrate, flat, hairy on both sides, a little glandular beneath. *Flowers* usually solitary, sometimes in great bunches; *peduncles* and *calyx* very hispid; the *tube* round; *sepals* compound. *Fruit* round, scarlet, hispid with setæ.

By specimens from Mr. Winch I have ascertained this to be his *R. involuta*. It is a charming plant; and as it is by far the most interesting of our British species, it has been with peculiar propriety dedicated by Mr. Woods to our common friend Mr. Sabine.

It differs from *R. involuta* in being far more robust and more strongly aculeated. The peduncles are solitary or aggregate, and in the latter case furnished with bracteæ; the sepals also are compound. It is so precisely intermediate between this division and the next, that it might with equal reason be referred to either. As it however is a British plant, and moreover confessedly of the family of *involuta*, I have preferred placing it in this division, notwithstanding its divided sepals and somewhat thickened disk.

R. Doniana is more dwarf than the other, and has straight prickles without setæ on the branchlets.

Can this be after all a production of *R. tomentosa mollis ?*

Div. VI. *Centifoliæ*. Setigeræ, armis difformibus; bracteatæ. Foliola oblonga v. ovata, rugosa. Discus incrassatus faucem claudens. Sepala composita.

This division comprises the portion of the genus which has most particularly interested the lovers of flowers. It is probable that the earliest Roses of which there are any records, as being cultivated, belonged to some portion of it; but to which particular species

those of Cyrene or Mount Pangæus are to be referred it is now too late to inquire. I may be allowed, however, to conjecture that they may all have descended from a common stock, and, by long-continued cultivation, have been brought to assume those appearances on which botanists rely for their differential characters.

The Attar which is so important an article of commerce is either obtained from them indiscriminately, as in the manufactory at Florence conducted by a convent of friars, or from some particular kind, as in India. From specimens in Mr. Lambert's herbarium brought from Ghizapore by Colonel Hardwicke it appears that *R. damascena* is there exclusively used for obtaining the essential oil. The Persians also make use of a sort, which Kæmpfer calls *R. shirazensis*, from its growing about Schiraz, in preference to others; this may be, as I shall have occasion to explain shortly, either *R. damascena* or *centifolia*. It is, however, well known that Attar from different countries is of various degrees of goodness; that from Turkey being usually the best. I am therefore disposed to think that *R. moschata* may be sometimes used either alone or mixed with other kinds; especially at Mogadore, where, I am informed by Dr. Shuter, considerable quantities are procured, but of inferior quality.

To the three or four following species nearly all the innumerable varieties of the gardens are referable. As it does not enter into my plan to notice any except such as are botanically remarkable, I gladly relinquish the task of describing the garden varieties to my friend Mr. Sabine, from whom an ample account may soon be expected. In the mean time, it will be sufficient to point out the distinguishing characters of the species without entering into a particular description of each.

They are all setigerous, by which they are distinguishable from the following divisions; their incrassated disk and divided sepals separate them from the preceding. To the division of *Rubiginosæ* the glandiferous sorts approach; but the different nature of their glands, the size of their flowers, and their dissimilar habit, prevent their being confounded.

39. ROSA damascena.

R. armis inæqualibus majoribus falcatis, sepalis reflexis, fructu elongato.

R. damascena *Mill. dict. n.* 15. *Du Roi harbk.* 2. 364. *Willd. sp.* 2. 1072. *Ait. kew. ed. alt.* 3. 263. *Smith! in Rees in l. Redout. ros.* 1. 137. *t.* 53.

R. belgica *Mill. dict. n.* 17. *Du Roi harbk.* 2. 364.

La Rose pale *Regn. bot. c. fig.*

R. calendarum *Munch. hausv.* ex *Bork. holz.* 330. *Rössig. ros. tt.* 8. 33. *Gmel. bad. als.* 2. 430.

R. bifera *Poir. enc.* 6. 276. *Pers. syn.* 2. 48. *Redout. ros.* 1. 107. *t.* 38.—121. *t.* 45.

Hab. in Syria? *(v. v. c.)*

R. damascena may be distinguished from *R. centifolia* by the greater size of its prickles, the almost universally green colour of its wood, elongated fruit, numerous flowers, and especially by its long sepals being reflexed during the time of flowering. In the last respect it agrees with *R. alba.* The bloom is exceedingly fragrant. *R. bifera* of some continental botanists is the *Quatre saisons* Rose of the French nurseries; and perhaps, from the long succession of its flowers, the most esteemed of all the varieties. Immense numbers in pots are sold weekly in the flower markets in Paris. I perceive no character to distinguish it, even as a variety, from the more common state of *damascena,* unless its smaller size be sufficient.

The native country of this is still not known with certainty. Sir James Smith has conjectured that it may be the Rose introduced from Syria by a Comte de Brie on his return from the crusades. But the most satisfactory account of it has been given by Nicholas Monardi, in his dissertation on the Roses of Persia, &c.

printed in *Clus. exot. p.* 48. He says they were called *damascenæ* because they are believed to have been brought "ex Damasco nobilissima Syriæ urbe;" and he adds, they have only been known about thirty years; thus bringing the date of their introduction to 1575. His description of his plant is excellent, and leaves no room for doubting that he meant the present *R. damascena*. "Sunt rosaria hæc velut nostra, sed magis arbusta, etc.—aculeos plurimos emittunt quin et acutiores. Folia velut nostra sed ampliora. Florum numerosiorem quantitatem effundunt, qui 5 aut 6 habent folia. Inter album et rubrum medium colorem sortiuntur."

40. ROSA centifolia.

R. armis inæqualibus majoribus falcatis, foliolis glanduloso-ciliatis, floribus cernuis, calycibus viscosis, fructu oblongo.

Rosa n. l. *Linn. cliff.* 191.

R. centifolia *Linn. sp.* 704. *Du Roi harbk.* 2. 367. *Bull. par. t.* 275. *Lour. coch.* 323? *Röss. ros. t.* 1. *Bieb. taur. cauc.* 1. 397. *Rau enum.* 109. *Redout. ros.* 1. 25. *t.* 1—37. *t.* 7.—77. *t.* 26—79. *t.* 27.—111. *t.* 40.

R. provincialis *Mill. n.* 18. *Du Roi harbk.* 2. 349. *Willd. sp.* 2. 1070. *Pers. syn.* 2. 48. *Ait. kew. ed. alt.* 3. 261. *Gmelin bad. als.* 2. 429, *Smith in Rees in l.*

R. polyanthos *Röss. ros. t.* 35.

R. caryophyllea *Poir enc.* 6. 276.

R. unguiculata. *Desf. cat.* 175.

R. varians *Pohl. bohem.* 2. 171.

β *muscosa*, calycibus pedunculisque muscosis.

R. rubra plena spinosissima, pedunculo muscoso *Mill. ic.* 221. *f.* 1.

R. muscosa *Mill. dict. n.* 22. *Du Roi harbk.* 2. 368. *Willd. sp.* 2. 1074. *Lawr. t.* 14. *Röss. ros. t.* 6. *Pers. syn.* 2. 49. *Ait. kew. ed. alt.* 2. 264. *Ker regist. tt.* 53. 102. *Redout. ros.* 1. 39. *t.* 8.—41. *t.* 9.—87. *t.* 31.

R. provincialis β *Smith in Rees in l.*

γ *Pomponia*, omnibus partibus minor.

R. centifolia minor *Röss. ros. tt.* 20. 37.

R. divionensis *Röss. l. c. t.* 24.

R. pomponia *D. C. fl. fr.* 4. 443. *Red. ros.* 1. 65. *t.* 21.

R. burgundiaca *Pers. syn.* 2. 48.

R. provincialis γ *Smith in Rees in l.*

R. centifolia τ. *Redout. ros.* 1. 113. *t.* 41.

δ *bipinnata*, foliis bipinnatis.

R. centifolia bipinnata *Pers. syn.* 2. 48. *Redout. ros.* 2. 11. *t.* 4.

Hab. in Caucasi orientalis nemorosis (Bieb.) *(v. v. c.)*

This has much the appearance of the last, but may be distinguished by its sepals not being reflexed at any period, the flowers full double, and the petals very large, whence the name of Cabbage Rose, by which it is usually known. Its fruit is either oblong or roundish; but never elongated. From *gallica* it may be told by its flowers being cernuous, and by the larger size of its prickles, with a more robust habit. It is well known that these plants are usually propagated by inlaying; but it is somewhat curious that, although the layers of *R. damascena* strike root readily, those of *centifolia* and *gallica* do not.

Sir James Smith is disposed to agree with those who think this a native of the south of Europe; but the places in which it has been reported to grow wild, in that quarter, are manifestly too suspicious to be admitted as authority for the habitat of a species so universally cultivated. I prefer, therefore, to place its native country in Asia, because it has been found wild by Bieberstein, with double flowers, on the eastern side of Mount Caucasus, whither it is not likely to have escaped from a garden. Perhaps the celebrated Rose of Schiraz, in praise of which Kæmpfer says so much, may be this also, or *damascena;* we have, however, no materials for more than conjecture. The flowers of this are chiefly used for obtaining distilled Rose water; those of *gallica* for drying.

Pohl, in his *Flora Bohemica*, has considered *gallica* and *provincialis* as varieties of each other. I am much rather disposed to agree with Borkhausen and French botanists, in taking the *provincialis* of Miller

and the *centifolia* of *Linnæus* to be the same. On this head no information is to be obtained from the Linnæan herbarium, and therefore other means must be used to ascertain the truth of the opinion.

There can be little doubt that Linnæus was acquainted with the Provins and Officinal Roses, and it is highly probable that he had them both growing in the garden at Upsal. Admitting this to be so, it is far more reasonable to suppose that he would distinguish these from each other, than that he would select for a species so trifling a variety of one of them *(gallica)*, as the Dutch hundred-leaved Rose is, and would at the same time not notice so different a looking plant as the Provins. Let us see how far this is confirmed by his publications.

R. centifolia, in the first edition of Species Plantarum, appears with the character "caule aculeato, pedunculis hispidis, calycibus semipinnatis glabris," which, as far as it can belong to either the Provins or hundred-leaved Rose, is equally applicable to both. He quotes *R. multiplex media* Bauh. pin. 482, which, from the reference to *R. centifolia batavica secunda* of Clus. hist. 1, 114, also cited by Linnæus, appears to be a sort of small Provins Rose; since Clusius expressly says it is intermediate between his *centifolia batavica alba*, which is the White Provins Rose, and his *centifolia batavica prima*. In the second edition of Species Plantarum the character is altered to "germinibus ovatis pedunculisq. hispidis, caule hispido aculeato, petiolis inermibus," which applies pretty well to the Provins Rose and not at all to the other. The same references are continued, and *R. rubra plena spinosissima pedunculo muscoso* of Mill. dict. t. 221, f. 1, which is a tolerably good figure of the Moss Rose, is added as probably belonging to it. Now this he never would have guessed to be a variety of the Hundred-leaved Rose.

In his earlier publication, the Hortus Cliffortianus, his *R. No.* 1. which is the same as his *R. centifolia*,

has the additional quotation of *R. centifolia rubra* of Besler's Hort. eyst. vern. 92. f. 4. which is really one of the hundred-leaved Roses; but which it is fair to presume he afterwards discovered to be so, and consequently erased, as it does not appear in his subsequent publications. The other references to *R. maxima multiplex* and *R. hollandica rubella plena, quibusdam centifolia spinoso frutice* of Bauh. hist. 236, unquestionably belong to the Provins Rose.

Miller, however, judging from the name *centifolia*, rather than from the specific character or references of Linnæus, concluded too hastily that the Dutch hundred-leaved Roses were intended. But as these were evidently no varieties of the Provins Rose, he proposed the latter as a new species, and, without further examination, he has been followed by subsequent writers in this country.

The Moss Rose is a mere variety of the common appearance of the Provins. Messrs. Lee and Kennedy possess a plant which produces both indiscriminately; and Sir James Smith was informed in Italy that the mossiness disappears almost immediately in that climate.

The Pompone, strangely confounded with the Burgundy Rose by some, is smaller in all its parts; and the next variety, the celery-leaved Rose of the French gardens, is a singular monstrosity with mis-shapen bipinnate leaves. I have seen a similar variety of *R. canina* growing in Mr. Sabine's garden.

41. ROSA gallica.

R. armis subæqualibus conformibus debilibus, foliolis rigidis ellipticis, floribus erectis, sepalis ovatis, fructu subgloboso.

R. rubra, &c. *Bauh. hist.* 2. 34.

R. n. 3. *Linn. cliff.* 191.

R. gallica *Linn! sp.* 704. *Mill. fig. t.* 221. *f.* 2. *dict. n.* 20. *Du Roi harbk.* 2. 363. *All. ped.* 2. 139. *Thunb. jap.* 214? *Willd. sp.* 2. 1071. *(Röss. ros. tt.* 17. 22. 25. *f.* 6. 26. 28. 31. 36. 38. 39.) *Pers. syn.* 2. 48. *Gmel. bad. als.* 2. 406. *Ait! kew.* 3. 262. *Smith! in Rees in l. Redout. ros.* 1. 73. *t.* 25.—135. *t.* 52.—2. 17. *t.* 7.—19. *t.* 8. 10.

R. centifolia *Mill. dict. n.* 14. *Willd. sp.* 2. 1071. *Pers. syn.* 2. 48.

Rosier de provins *Regn. bot.*

R. sylvatica *Gater. montaub.* 94.

R. rubra *Lam. fl. fr.* 3. 130.

R. holosericea *Röss. ros. t.* 16.——damascena rubro-purpurea *ibid. t.* 18.

R. belgica *Brot. lus.* 1. 338.

R. blanda *Brot. l. c.?*

R. cuprea *Jacq. fragm.* 31. *t.* 34. *f.* 4.

β pumila, floribus simplicibus, radicibus repentibus.

R. pumila, &c. *Bauh. hist.* 2. 35.

R. pumila *Linn. suppl.* 262. *Jacq! austr.* 2. 59. *t.* 198. *All. ped.* 2. 140. *Willd. sp.* 2. 1072. *Pers. syn.* 2. 49. *Bieb. taur. cauc.* 1. 397. *Ait! kew.* 3. 263. *Pohl. bohem.* 2. 172. *Wahl. cauc.* 150. *Smith! in Rees in l. Rau enum.* 112.

Rosa 1104 *Hall. helv.*

R. repens *Munch. hausv.* 5. 281.

R. hispida *Munch. l. c.*

R. austriaca *Crantz. austr.* 86. *Poll. palat.* 50.

R. olympica *Donn! cant. ed.* 8. 170.

γ *arvina*, foliis utrinque nudis.

R. arvina *Krock. siles.* 2. 150. *Rau enum.* 106.

Hab. in sepibus circa Montalbanum, (Gaterau); dumosis circa Walzenberg, (Wibel); β circa Genevam—frequens in collibus herbidis siccioribus, imprimis ad sylvas et fruticetis Austriæ, *Jacquin*; Pedemontii, *(All.)*; Tauriæ et Caucasi Iberici, (Bieb.); γ ad margines agrorum prope Retzbach, (Rau). *(v. v. c. et s. sp. herb. Banks.)*

Since *R. pumila* of Jacquin is to be considered as the wild state of this species, it ought perhaps to have been placed first rather than as a variety. In that case, however, the well-known name of *gallica* must have been given up for another, the knowledge of which scarcely extends beyond the country in which it grows wild.

Switzerland and Austria produce it in the greatest abundance, but it has also been found in Asia by Bieberstein. Rau informs us that in the vicinity of Wurtzburg it grows so copiously as to injure the corn exceedingly by its creeping roots, like *Rubus cæsius*. It is better known in our gardens by Donn's name of *olympica*, while the name *pumila* is improperly applied to *R. majalis*.

The numerous double varieties known under the names of the Giant, Velvet, Bishop, &c. Roses are of the most exquisite beauty, and would be unrivalled in the vegetable world if accompanied by the fragrance which characterizes less brilliant species. The most splendid of them all is the Tuscany Rose, of which the late Mr. Sydenham Edwards left an excellent figure, which will soon appear in the Botanical Register.

The *Rosa arvina* of Krocker's Flora Silesiaca differs, as Rau himself confesses, in little except having a smooth tube to the calyx and naked leaves.

R. gallica has many points in common with *R. centifolia*. They may be distinguished in any state by the stiff upright flowerstalks, want of large prickles, rigid leaves and smaller petals with shorter sepals of the former; its mode of growth is more compact and stature generally less. Its leaves are moreover never edged with glands, which those of *centifolia* always are.

Forskahl's *Rosa gallica*, which he mentions as growing at Constantinople as high as the houses, and with double white flowers, cannot possibly be this. Could he mistake *R. moschata* for it? which is known to be cultivated there.

42. ROSA parvifolia.

R. nana, armis subæqualibus, foliolis rigidis ovatis acutis argute serratis, sepalis ovatis.

R. parvifolia *Ehr. beitr.* 6. 97. *Willd. sp.* 2. 1078. *Pers. syn.* 2. 50. *Smith in Rees in l. Bot. reg. t.* 452.

R. burgundiaca *Röss. ros. t.* 4. *Gmel. bad. als.* 2. 431. *Brot. lus.* 1. 339.

R. remensis *Desf. cat.* 175. *Decand. fl. fr.* 4. 443. *Mer. par.* 191.

Hab. in montibus Divionensibus, (Durand) *(v. v. c.)*

A little dark, compact, blueish gray plant. *Branches* somewhat glaucous, straight, erect, slender, armed with unequal, scattered, slender, somewhat falcate prickles and a few setæ. *Leaves* on the strongest shoots at least twice as long as the joints, on the branchlets very densely aggregated; *stipules* linear, nearly naked, fringed with glands, bright green; *petioles* hairy, hav-

ing at the back a few strong short straightish little prickles, glandular; *leaflets* 3-7, usually 5, small, stiff, ovate, acute, flat, very finely and simply toothed; *serratures* with a gland on one side of a deep dull green, rugose, and naked above, pale ash-colour, with a hairy rib and prominent veins beneath, the lowest pair, when more than three, generally very small. *Flowers* solitary, overtopped by the young shoots, without bracteæ, purple, always very double; *peduncle* with no hairs but a few weak setæ: *tube of the calyx* ovate, naked; *sepals* ovate with a point, nearly simple, concave, reflexed, hairy and scattered over with glands, very much shorter than the *petals;* these are spreading, except the inner ones, which are in part formed from the ovaria and very closely imbricated; *styles* hairy, a little exserted, and adhering by their down.

I have little hesitation in distinguishing this particularly from the last, especially as I have the authority of the accurate and observing Ehrhart for doing so. It surely differs as much from *gallica* as that does from *centifolia*, and as I have no varieties to enumerate of it, there is the less difficulty in finding characters that may be depended upon. I have seen it growing in the most sterile and the most fertile soils; yet without material alteration in its appearance, and most certainly without the slightest tendency to assume the characters of *gallica*. M. Durand is reported, on the authority of Decandolle, to have found this wild on mountains in the neighbourhood of Dijon.

Div. VII. *Villosæ.* Surculi stricti. Aculei rectiusculi. Foliola ovata v. oblonga serraturis divergentibus. Sepala conniventia persistentia. Discus incrassatus faucem claudens.

This division borders equally close upon those of *Caninæ* and *Rubiginosæ*. From both it is distinguished by its rootshoots being erect and stout, not bending gracefully except in the case of the true *tomentosa*. The most absolute marks of difference, however, between this and *Caninæ* exist in the prickles of the former being straight and the serratures of the leaves diverging; I know no instance in which these two taken together will not prove satisfactory. If, as is sometimes the case, the prickles of this tribe are falcate, the serratures diverge the more evidently; if, on the contrary, the latter converge, the prickles become straighter; the former appearance being caused by luxuriance, the latter by debility. The reverse obtains in *Caninæ*. Persistence of sepals is another peculiarity by which the tribe under consideration may be distinguished from the *Caninæ*.

Rubiginosæ cannot be confounded with *Villosæ*, on account of their unequal hooked prickles and glandular leaves. Roughness of fruit and persistence of sepals is common to both.

R. villosa has sometimes setæ.

43. ROSA turbinata.

R. calycis tubo turbinato.

R. francofurtana *Munch. hausv.* 5. 24. *Bork. holz.* 312. *Gmel. bad. als.* 2. 405.

R. turbinata *Ait.! kew.* 2. 206. *Willd. sp.* 2. 1073. *Lawr. t.* 63. *Jacq. schönbr.* 4. *t.* 415. *Pers. syn.* 2. 49. *Jacq. fragm.* 71. *t.* 107. *f.* 2? *Smith! in Rees in l. Rau enum.* 48. *Redout. ros.* 1. 127. *t.* 48.

R. campanulata *Ehr. beitr.* 6. 97.

R. francfurtensis *Röss. ros. t.* 11. *Desf. cat.* 175.

Hab. ———; quasi spontanea in Germaniæ vineis et dumetis. *(v. v. c.)*

A bush with the size and general aspect of *R. damascena,* from which it differs in having no setæ, equal straight prickles, ovate entire sepals, and turbinate tube of the calyx. The native country of this Rose is not exactly known. Rau asserts it to be a native of Germany, and mentions as places of growth the borders of vineyards and bushy places. Yet it is difficult to understand how so very double a flower should ever be propagated by seed, and if not by seed, how it should find its way to such places, except as the outcast of gardens.

Jacquin, in his *Fragmenta,* figures the fruit of what he considered to be a single state of this species; but it is oblong and must surely belong to something else.

44. ROSA villosa.

R. foliolis ellipticis obtusis, fructu maximo armis rigidis confertis horrido, sepalis viscosis hispidis.

R. villosa *Linn. sp. pl.* 704. *Willd. sp.* 2. 1069. *Smith! britt.* 2. 538. *Eng. bot!* 583. *Ait. kew. ed. alt.* 3. 260. *Bieb. taur. cauc.* 2. 395. *Decand. fl. fr.* 4. 440. *Smith in Rees in l. Rau enum.* 150. *Redout. ros.* 1. 67. *t.* 22. *excl. fig. fruct. (Lawr. ros. t.* 29.)

R. pomifera *Herm. diss.* 16. *Bork! holz.* 309. *Gmel. bad. als.* 2. 410.

R. gracilis *Woods! in act. linn.* 12. 186.

Hab. in Anglia septentrionali, *Woods;* Gallia, (Decand.); circa Wirceburgum, (Rau); Tauriæ montibus sylvaticis, (Bieb.). *(v. v. c. et s. sp.)*

The largest of the genus, sometimes forming a small tree, with a trunk as thick as a man's arm. *Branches* dull, very glaucous, frequently without any tinge of red, armed with strong, straight, or somewhat falcate, equal prickles, either scattered or under the stipulæ; *branchlets* with a few setæ or none. *Leaves* usually very large and gray, densely downy every where; *stipulæ* spreading, acute, finely serrated and fringed with glands; *petiole* glandular, with pale, falcate, unequal prickles; *leaflets* about 5, very unequal, elliptical, flat, rugose, with a turpentine smell when bruised, very coarsely and doubly serrated, the serratures diverging. *Flowers* in pairs, either blue or deep red, of a middling size; *bracteæ* large, ovate, concave, rugose, hoary, nearly smooth above; *peduncles* very short, they and the *calyx* protected by rigid, unequal setæ, and clammy with glands; *tube* ovate, glaucous; *sepals* narrow, compound, spreading; *petals* longer than the last, obcordate, a little crenate at the edge;

disk elevated, not very thick; *styles* hairy, distinct, usually much shorter than the ripe fruit. *Fruit* either purple or deep red, round, with a thickened short peduncle, covered with stiff setæ and crowned by the connivent pale brown clammy sepals.

The distinction between this and the following having been ill understood by the greater part of botanists, it has become not only very difficult, but in many cases absolutely impossible, without authentic specimens, to extricate their synonyms. The above are therefore all I have thought it safe to cite.

The characteristic definition of Linnæus, "germinibus globosis aculeatis, pedunculis hispidis, &c." by which he meant to contrast the rigidity of the arms of the former with the weakness of those of the latter, places his plant beyond the reach of doubt, especially because there is no state in which the fruit, either young or old, of *tomentosa* can be called aculeated. Mr. Woods, however, judging from the specimens marked *villosa* in Linnæus's herbarium, conceived that, notwithstanding his specific character, he really intended that variety of *tomentosa* which I have called *mollis*, and which he considers a distinct species. But I am assured by the learned possessor of that collection, that the specimen there is no authority whatever, because it was acquired after the publication of the first edition of *Species plantarum*. It however confirms me in the opinion that Linnæus did not distinguish the two plants; at least not in his publications. For, in addition to the proof afforded by his herbarium, Afzelius has ascertained that *R. tomentosa* alone grows in the places indicated by Linnæus as producing his *R. villosa*.

The most essential point of difference between the two is in the fruit, which has in *R. villosa* a considerable number of rigid setæ and even prickles scattered over its surface: while that of *tomentosa* can never be termed more than hispid. It is also much larger in the former than in the latter, and is more fleshy. The leaves are larger, more exactly elliptical, and coarsely serrated.

The flowers usually grow in pairs and with stalks of unequal length: the longer drooping gracefully as the fruit ripens. The young shoots are remarkably glaucous (as in *R. alba)*, and there is a manifest tendency to produce setæ and glands on the branchlets. The curious plant which Mr. Woods calls *gracilis* has numerous setæ intermixed with the prickles: thus having in a great measure the characters of the *centifoliæ* division. Mr. Sabine detected it among young plants raised from seed of the common tree Rose, in Mr. Lee's nursery at Hammersmith.

R. villosa of Pallas seems to be rather a variety of *R. rubiginosa;* of most other authors to be the next species.

Grows probably all over Northern and Middle Europe and Northern Asia, but not in great abundance.

45. ROSA tomentosa.

R. foliolis ovatis acutiusculis, fructu hispido nudove.

α *vera*, surculis arcuatis, sepalis compositis.

R. n. 1105. *Hall. helv.*

R. villosa *Du Roi! harbk.* 2. 341. *Huds. angl.* 219 *var.* β. *Mönch. meth.* 688. *Afz. tent. prim. Mer. par.* 190. *Fl. dan. t.* 1458. *Desv. journ. bot.* 2. 117.

R. mollissima *Bork. holz.* 307. *Willd. prodr. fl. berol.* 1237. *Gm. bad. als.* 2. 409.

R. tomentosa *Smith! britt.* 2. 539. *Decand. fl. fr.* 4 . 440. *Eng. bot!* 990. *Mer. par.* 190. *Pohl bohem.* 2. 171. *Pers. syn.* 2. 50. *Smith! in Rees in l. Woods! in act. linn.* 12. 197. *Redout. ros.* 2. 39. *t.* 17.

R. dubia *Wibel wirth.* 263.

R. scabriuscula *Eng. bot! t.* 1896. *Smith! in Rees in l. Woods! in act. linn.* 12. 193. *Winch! ess. geogr.* 43.

R. fœtida *Bat. suppl.* 29. *Decand. suppl.* 534. *Redout. ros.* 1. 131. *t.* 50.

β *mollis*, surculis strictissimis, sepalis subsimplicibus.

R. villosa *Vill. dauph.* 3. 551. *Woods! l. c.* 12. 189.

R. mollis *Eng. bot! t.* 2459. *Smith! in Rees in l. Winch! ess. geogr.* 42.

R. heterophylla *Woods! l. c.* 12. 195.

R. pulchella *Woods! in act. linn.* 12. 196.

R. villosa minuta *Rau enum.* 166?

γ *resinosa*, pumila, cæsia, foliolis angustis, floribus ruberrimis.

Hab. per totam Europam sepibus incultisque; γ in

Hibernia, *Drummond.* *(v. v. s. & c.; γ s. sp. herb. Hooker.)*

Seven or eight feet high, spreading, very gray. *Branches* somewhat glaucous, armed with straight, (rarely falcate) equal, scattered prickles and without setæ. *Leaves* hoary with down; *stipules* concave, dilated, toothletted and fringed with glands; *petioles* slightly prickly and glandular; *leaflets* about 5, oblong or ovate, obtuse, doubly serrated; *serratures* diverging, rarely converging; soft and rugose, paler beneath, and sometimes slightly glandular, when bruised having a turpentine smell. *Flowers* one or more, reddish, cup-shaped, with short stalks; *bracteas* ovate or oblong, downy, longer or shorter than the peduncles, which are hispid with unequal setæ and glands; *tube of the calyx* ovate, oblong or round, usually hispid, sometimes nearly smooth; *sepals* compound, spreading, always hispid at the back; *petals* entire, obcordate, concave; *disk* thickened, flat; *styles* very hairy, distinct. *Fruit* somewhat purple, round or obovate, or depressed, usually hispid, crowned by the converging sepals; but these sometimes fall off immediately after the fruit is ripe.

If I am right in referring Borkhausen's *Rosa mollissima* to this variety rather than the next, it will have the claim of priority over Sir James Smith's *tomentosa*. But, however, as this cannot be absolutely determined without actual inspection of authentic specimens, I have preferred leaving the name as I found it.

This is the most variable of the genus except *canina*; but the greater part of the varieties are very trifling and can be brought within the compass of a tolerable definition only in the three instances of *tomentosa* and *mollis* of English Botany and *resinosa* of Mr. Lyell's MSS.

The first has the leaflets smooth above *(tomentosa β* Woods. and *fœtida Bat.)*—or smooth on both sides *(tomentosa γ* Woods)—or without glands *(tomentosa ο Woods)*. The fruit is long, round, depressed or tur-

binate, hispid, or smooth, or nearly so. Flowers pale blush, or deep red, or blotched, as in the English Botany figure of *R. scabriuscula*. This plant is very common in Suffolk, and may well have puzzled Mr. Woods to find out what the important difference is between it and *tomentosa*. In fact, a vague, almost indescribable dissimilarity in their general aspect, chiefly caused by the larger leaves of the former, is all they can be distinguished by, even by the most practised observer. So far is the pubescence from being harsher than in *tomentosa*, that it is just the reverse. What Mr. Winch finds near Newcastle has more acute leaflets than the Suffolk plant, which is very well represented in English Botany.

R. fœtida of Batard's supplement to the flora of the Maine and Loire is a weak variety with leaves smooth above. Its fruit is said to be fetid when bruised. *R. Reynieri* referred here by Woods seems rather to be *R. rubiginosa flexuosa*.

β has certainly a well-marked character, in its mode of growth, to distinguish it from α—its rootshoots being very straight and not bent like a bow, as in the other. I doubt, however, whether this can be considered sufficient without some additional peculiarities. The undivided sepals are tolerably constant; but I have specimens from Mr. Lyell of a Northumberland plant which produces both. These in *heterophylla* are confessedly a *little* divided; and in *pulchella*, which has all the appearance of the stunted state of *mollis* figured in English Botany, are quite compound again. Many specimens of *R. tomentosa* have sepals perfectly intermediate between compound and nearly simple; and I believe it will not be doubted that the distinction between simple and subsimple is too ambiguous for specific discrimination. I have examined Mr. Woods's own specimens of *R. pulchella* without being able to detect the crenature of the petals, on which he is disposed to place too much confidence. For it cannot be worth much as a character unless the comparative size of flowers be admitted also; since it always happens

that crumpled petals have their margin more or less crenated. Plants of *R. hibernica* in Mr. Lyell's garden had crenate petals one season and emarginate ones the next.

Variety *resinosa* is a very interesting plant, and may be considered as the same sort of offspring of *tomentosa* as Rau's *aciphylla* is of *canina*. Wild specimens are smaller in all their parts, with very compact foliage, narrow hoary leaves, and bright red flowers. I have, however, an intermediate specimen from the same part of Ireland, and in Mr. Lyell's garden the cultivated plant is becoming more robust every year and less hoary. It was found in the south of Ireland by Mr. Drummond, curator of the Botanic garden at Cork, and kindly communicated by Mr. Hooker.

So closely do *tomentosa* and *canina* border on each other, that, as satisfactory marks of difference, I have only to propose the straight prickles, diverging serratures, hispid fruit, sepals and peduncle and soft leaves of the former, as contrasted with the hooked prickles, converging serratures, smooth calyx, deciduous sepals, and naked or harshly pubescent leaves of the latter. *R. tomentosa* has usually the sepals erect during flowering, but I have specimens from Chamouni, gathered by Mr. Hooker, with reflexed ones.

46. ROSA alba.

R. foliolis oblongis glaucis supra nudiusculis simpliciter serratis, sepalis reflexis, fructu inermi.

R. sativa *Dodon. pempt.* 186. *t.* 1.

R. candida plena et semiplena *Bauh. hist.* 2. 44.

R. damascena fl. pl. albo. *Besl. eyst. vern. ord.* 6. *fol.* 1.

R. alba *Linn.! sp.* 705. *Mill. dict. n.* 16. *All. pedem.* 2. 139. *Lour. cochin.* 323? *Willd. sp.* 2. 1080. *Mönch meth.* 689. *Lawr. ros. tt.* 23. 25. 32. 37. *Decand. fl. fr.* 4. 448. *Pers. syn.* 2. 49. *Ait. kew. ed. alt.* 3. 267. *Gmel. bad. als.* 2. 427. *Fl. dan.* 1215. *Smith! in Rees in l. Rau enum.* 94. *Redout. ros.* 1. 97. *t.* 34—117. *t.* 43.

R. usitatissima *Gat. montaub.* 94.

Hab. in Pedemontio, (Allioni); Cochinchina? (Loureiro); in sepibus Fioniæ, (Fl. dan.); Galliæ, (Decand.); Hessiæ et Saxoniæ, (Roth). *(v. v. c.)*

Six or seven feet high, spreading, very grey. *Branches* strong, dull, glaucous, on the sunny side sometimes red, armed with straightish or falcate, slender or strong, unequal, scattered prickles and no setæ. *Leaves* dull, glaucous; *stipulæ* narrow, flat, elongated at the end, nearly naked, serrated and fringed with glands; *petioles* downy, glandular and prickly; *leaflets* 7 or 5, large, rugose, ovate, or nearly round, obtuse or with a little point, simply serrated with pointed teeth, above naked, beneath downy and very pale. *Flowers* large, numerous, either white or of the most delicate blush colour, frequently double; *bracteæ* lanceolate, downy, straight, concave; *peduncles* with unequal weak setæ; *tube of the calyx* oblong, naked or bristly at the

bottom; *sepals* long, pinnated, hispid on the outside, reflexed, deciduous; *petals* concave, emarginate; *disk* thickened, and flattened; *styles* villous, distinct. *Fruit* oblong, scarlet or blood-coloured.

If *R. gallica* be the most splendid of the garden Roses, this species may be considered the most beautiful. Nothing can be more delicately coloured than its full double, blush petals, nor more gratefully fragrant than their scent. It is naturalized on the banks of the Tyne, as I am informed by Mr. Winch; but it has not yet been found wild in this country. It has been discovered in France; and is not uncommon in Germany and Piedmont. Is it possible that Loureiro's *R. alba* can be it?

Rugose, very glaucous leaves, simple serratures, long, reflexed, deciduous sepals, and usually acicular unequal prickles, divide it from *R. tomentosa* and *canina*. *R. turbinata* resembles it more in its botanical characters than in reality.

47. ROSA hibernica.

R. aculeis inæqualibus: minoribus setiformibus, foliolis ovatis acutis nudiusculis simpliciter serratis.

R. hibernica *Eng. bot! t.* 2196. *Ait! kew. ed. alt.* 3. 261. *Smith! in Rees in l. Woods! in act. linn.* 12. 222.

Hab. in Hibernia *Templeton (v. v. c. & s. sp. herb. Banks, Hooker, Smith, &c.)*

A compact shrub three or four feet high. *Branches* erect, reddish brown, with equal, straight prickles and

no setæ; *branchlets* with weak unequal prickles, some of which are very small; *rootshoots* rather setigerous, covered all over with much longer, but unequal prickles, some of which are hooked. *Leaves* like those of *R. spinosissima sanguisorbifolia*, but larger and more acute; *leaflets* generally 5, hairy beneath, especially at the rib, simply serrated. *Flowers* solitary, almost always without bracteæ; *peduncle*, round *tube of the calyx* and *sepals* naked, the latter compound, reflexed after flowering: *petals* concave, emarginate; *disk* flat, conspicuous. *Fruit* crowned with the sepals, deep dull red.

It is more difficult to assign a situation for this, than for any other species of the genus. Its habit is when weak, like *spinosissima;* when more vigorous, like *canina;* and if exceedingly luxuriant, like *tomentosa mollis*. It comes better into the character of the division where I have placed it than elsewhere, and may be considered as a transition from *Villosæ* to *Caninæ*. Mr. Woods, with his usual acuteness, has selected as its most important character the mixture of small straight prickles on the branches, adding, "It is true that *R. hibernica* has this in common with *rubiginosa;* but the entire want of glands, the simple serratures and the shape of the fruit, render it impossible that any mistake should arise between them."

If this be not the most interesting, it is at least the most valuable of the genus;—or, rather, was so to Mr. Templeton, who found it, as he became entitled to fifty pounds, offered as a premium by the patrons of Botany in Dublin, for the discovery of a new Irish plant. The neighbourhood of Belfast is the only part of the world in which it has yet been detected.

Div. VIII. *Rubiginosæ*. Aculei inæquales, nunc setiformes, rarò (an unquam?) nulli. Foliola ovata v. oblonga, glandulosa, serraturis divergentibus. Sepala persistentia. Discus incrassatus. Surculi arcuati.

The numerous glands on the lower surface of the leaves will usually suffice to prevent any thing else being referred to this tribe. But *R. tomentosa* has sometimes glandular leaves, and in such cases the inequality of the prickles of *Rubiginosæ* and their red fruit will alone distinguish them.

48. ROSA lutea.

R. aculeis rectis, foliolis planis concavis, calycibus subinermibus integris.

R. lutea *Dodon. pempt.* 187. *Bauh. hist.* 2. 47.

R. lutea simplex *Bauh. pin.* 483. *Besl. eyst. vern. ord.* 6. *fol.* 5.

R. eglanteria *Linn.! sp.* 703. *Wibel. werth.* 263. *Roth. germ.* 1. 217. 2. 553. *Decand. fl. fr.* 4. 437. *Pers. syn.* 2. 47. *Mer. par.* 189. *Redout. ros.* 1. 69. *t.* 23.

R. lutea *Mill.! dict. n.* 11. *Du Roi harbk.* 2. 344. *Mönch meth.* 688. *Willd. sp.* 2. 1064. *Lawr. ros. t.* 12. *Curt. bot. mag. n.* 363. *Ait.! kew.* 3. 258. *Gmel. bad. als.* 2. 403. *Smith.! in Rees in l. Rau enum.* 157.

R. fœtida *Herm. diss.* 18. *All. pedem.* 2. 138.

R. chlorophylla *Ehr.! beitr.* 2. 69.

R. cerea *Rössig. ros. t.* 2.

β *punicea*, floribus bicoloribus.

R. sylvestris austriaca, flore phœniceo *Hort. angl.* 66. 18.

R. punicea *Mill. dict. n.* 12. *Du Roi harbk.* 2. 347. *Röss. ros. t.* 5.

R. cinnamomea *Roth. germ.* 1. 217. & 2. 554.

R. lutea bicolor *Jacq! vind.* 1. *t.* 1. *Lawr. ros. t.* 6. *Sims bot. mag. n.* 1077. *Ait! kew.* 3. 258. *Smith! in Rees in l.*

R. eglanteria punicea *Redout. ros.* 1. 71. *t.* 24.

Hab. circa Alliano, (Allioni); in sepibus Wertheimensibus, (Wibel); in Gallia australi, *Requien;* circa Wirceburgum, (Rau); β in Austria. *(v. v. c. & s. sp. herb. Hooker.)*

A naked-looking bush, about four feet high. *Branches* somewhat erect, shining, dark brown, defended by pale, straight, nearly equal, scattered prickles and no setæ; *rootshoots* more densely armed. *Leaves* somewhat shining, deep green; *stipules* narrow, dilated and divaricated at the end, finely toothed and fringed with glands, a little pubescent or not; *petioles* naked or downy, rarely glandular; *leaflets* 5-7, elliptical or ovate, a little pointed, spoonshaped, simply or doubly serrated, naked above, hairy more or less and glandular beneath. *Flowers* deep yellow, large, cupshaped, solitary; *bracteæ* none; *peduncle* and *tube of the calyx* unarmed, the latter ovate; *sepals* ovate, pointed, little divided, setigerous and even prickly on the outside; *petals* obcordate; *disk* thickened; *styles* villous, distinct. *Fruit* unknown.

This, as Sir James Smith observes, has been strangely confounded by some botanists with *R. sulphurea.* And yet their resemblance chiefly consists in the similarity of colour in their flowers; *sulphurea* being undoubtedly allied to *R. sibirica, lutescens,* &c. and this, though very different, so closely bordering upon *R. rubiginosa* that Linnæus at one time did not distinguish them and united them under the name of *eglanteria.* This name, De Theis tells us, should be written *aiglanteria,* being formed from *aig,* which is derived from the Celtic *ac,* and signifying point. French botanists have agreed to

consider this the real *eglanteria* of Linnæus, and have continued that name in preference to Miller's. As far as the authority of the Linnæan herbarium goes, they have it in their favour. But I nevertheless prefer following Willdenow and others in retaining the name *lutea*, rather than one which is by no means either expressive or generally adopted; and, if we may judge from what Linnæus says in the first edition of *Species Plantarum*, he at that time had *rubiginosa* in view.

It is known at first sight by its branches with foliage only at the extremities, prickles usually several under the stipulæ, and leaflets which are hollow like the bowl of a spoon. The only spontaneous specimens I have seen were gathered near Avignon by M. Requien, and are in the possession of Mr. Hooker.

49. ROSA rubiginosa.

R. aculeis aduncis, foliolis rugosis opacis, calycibus pedunculisque hispidis.

α *vulgaris*, aculeis fortibus valde inæqualibus, stylis villosis, fructibus ovatis v. oblongis.

R. sylvestris odorata *Dodon. pempt.* 186 *ic.* 2.

R. sylvestris foliis odoratis *Bauh. pin.* 483.

R. foliis odoratis, &c. *Bauh. hist.* 241.

R. sylvestris odora *Ger.* 1087. 1.

R. —— *Fl. Suecica* 443.

R. eglanteria *Mill. dict. n.* 4. *Du Roi harbk.* 2. 336. *Huds. angl.* 218. *Afz. tent.* 1. *Woods! in act. linn.* 12. 206.

R. rubiginosa *Linn! mant.* 2. 564. *All. pedem.* 2. 140. *Mönch meth.* 688. *(Lawr. ros. tt.* 41. 61. 65. 72. 74.) *Roth. germ.* 2. 558. *Willd. sp.* 2. 1073.

Smith! britt. 2. 540. *Schkuhr bot. handb. t.* 134. *Eng. bot! t.* 991. *Decand. fl. fr.* 4. 445. *Pers. syn.* 2. 49. *Bieb. taur. cauc.* 1. 398. *Ait! kew.* 3. 264. *Gmel. bad. als.* 2. 407. *Smith! in Rees in l.*

R. suavifolia *Lightf. scot.* 1. 262. *Fl. dan. t.* 870.

R. pseudo-rubiginosa *Lejeune fl. des env. de Spa* ex *Desv.*

R. rubiginosa vulgaris *Rau enum.* 130.——glabra *Rau l. c.* 137.

β micrantha, aculeis ramulorum æqualioribus v. nullis, sepalis ante maturitatem deciduis, stylis villosiusculis, fructibus oblongis v. obovatis.

R. odoratissima *Scop. carn.* 1. 354.

R. ** ? *Crantz stirp. austr.* 1. 87 ?

R. eglanteria rubra *Röss. ros. t.* 10.

R. rubiginosa *Jacq. austr.* 1. 31. *t.* 50?

R. Crantzii *Schultes obs.* 94?

R. rubiginosa triflora *Wild. berl. baum.* 397. *Wallr. an. bot.* 65. *Rau enum.* 134. *Redout. ros.* 1. 93. *t.* 34.

R. micrantha *Eng. bot! t.* 2490. *Decand. suppl.* 539. *Smith! in Rees in l. Woods! in act. linn.* 12. 209.

R. eglanteria americana *Andrews's roses. c. fig.*

R. suaveolens *Pursh. am. septr. n.* 11. *Smith! in Rees in l.*

R. nemorosa *Lejeune spa.* 2. 311. ex *Redout.*

R. rubiginosa resinosa *Wallr. an. bot.* 65.———parvifolia *Rau enum.* 135.

R. rubiginosa nemoralis *Redout. ros.* 2. 23. *t.* 10.

γ umbellata, inflorescentiæ ramulis aculeatissimis, fructibus elongatis.

R. umbellata *Leers herb.* 119. *add.* 286. *Gmel. bad. als.* 2. 425. *D. C. suppl. fl. fr.* 532. *Rau enum.* 140.

R. sempervirens *Roth. germ.* 1. 218. 2. 536.

R. tenuiglandulosa *Mer. par.* 189.

R. eglanteria cymosa *Woods! in act. linn. l. c.*

δ ? *grandiflora*, foliis nudiusculis, floribus maximis, fructu purpureo.

R. grandiflora *Wallr. an. bot.* 66.

ε *flexuosa*, ramis valde flexuosis, foliolis suborbiculatis, bracteis deciduis, floribus subsolitariis, stylis impubibus.

R. Reynieri *Hall. fil. in Röm. arch. b.* 1. *st.* 2. *p.* 7?

R. flexuosa, *Rau enum.* 127.

R. montana *Decand. suppl.* 532?

ζ. *rotundifolia*, ramis flagelliformibus: aculeis rectiusculis tenuibus, foliolis subrotundis duplò minoribus, calycis tubo subgloboso glabro.

R. rubiginosa rotundifolia *Rau enum.* 136.

η *sepium*, ramis debilibus flexuosis, foliolis utrinque acutis, floribus sub-solitariis, fructibus glaberrimis, sepalorum laciniis angustissimis.

R. helvetica *Hall. fil. in Röm. arch. b.* 1. *st.* 2. *p.* 6?

R. myrtifolia *Hall! fil. MSS.*

R. canina β *D. C. fl. fr. ed.* 3. 3716 ex *D. C.*

R. sepium *Thuill. par.* 252. *Mer. par.* 192. *D. C! suppl.* 538.

R. agrestis *Savi pis.* 1. 475. *mat. med. t.* 27 *ex D. C.*

R. biserrata *Mer. par.* 190?

R. macrocarpa *id.* fide *Desv.*

R. stipularis *id.* fide *Desv.*

θ *inodora*, aculeis valde aduncis subæqualibus, foliolis minus glandulosis, sepalis ante maturitatem deciduis.

R. villosa *Pall. ross.* 63?

R. inodora *Agardh. novit.* 9.

R. dumetorum *Eng! bot. t.* 2579. *Smith! in Rees in l.*

R. Borreri *Woods! in act. linn.* 12. 210.

Hab. per totam Europam copiose; Caucaso, (Bieb.); γ Anglia infrequens; Germania, (Roth); Gallia, (Decand.); ε circa Wirceburgum, (Rau); Helvetia,

Hooker; ζ circa Wirceburgum (Rau); η Gallia *Decand.*; ϑ Anglia; Rossia (Pall.); Suecia, (Agardh). *(v. v. sp.; ε, η, s. sp. herb. Hooker.)*

Much branched, three or four feet high, with a more compact habit than *R. canina*. *Branches* bright green, flexuose, armed with numerous, hooked, unequal, scattered, strong prickles; on the rootshoots sometimes very small and tipped with a gland. *Leaves* dull, rugose, green, very sweetscented, covered beneath with numerous brown glands; *stipulæ* dilated, toothletted, hairy beneath; *petioles* with a few strong, unequal prickles; *leaflets* 5-7, roundish or ovate, pointed, doubly serrated, somewhat spoonshaped, usually naked above, covered with hairs, and very pale and rugose beneath. *Flowers* one to three together, concave, pale blush; *bracteæ* pale, lanceolate, acute, concave, slightly hairy and glandular; *peduncles* and *calyx* hispid, with weak setæ; *tube* ovate: *sepals* reflexed, pinnate; *petals* obcordate; *disk* much thickened; *ovaries* 30-40; *styles* hoary, distinct. *Fruit* orange red, roundish, oblong or obovate, hispid or smooth; crowned by the ascending sepals.

Under the foregoing species I have attempted to explain why I cannot agree with Mr. Woods in adopting the rejected Linnæan name of *eglanteria*. If it is to be retained at all, this is certainly not the plant to bear it.

The more common appearance of this plant is a compact, much-branched bush, with pale red flowers in threes, bristly scarlet fruit and bright green but not shining leaves, which are powerfully and gratefully fragrant. All these characters are, however, liable to considerable variation, and have been the foundation of a multitude of supposed species. Many of them have been given up by their authors; and those which remain may be reduced to seven natural groups, to which I have prefixed the best characters I have been able to find.

R. micrantha was first proposed as a species by Sir James Smith in English Botany, and has been more recently adopted by Mr. Woods, who attempted to discriminate it by its long fruit and the equal size of the prickles. But these appearances are very inconstant, and may not unfrequently be observed on indisputable *R. rubiginosa*. It is common in the south of England with very small flowers; but Mr. Lyell, who has constant opportunities of watching it, is unable to distinguish it essentially from the common sweetbriar. The scent of the leaves is equally variable in both. There are, however, some peculiarities which, though not of much importance, will help to distinguish it with tolerable certainty. Frequently it produces long, rambling, unarmed shoots, which are rarely observed in *R. rubiginosa*. The styles are often without pubescence, and the sepals usually drop off before the fruit is quite ripe. It appears to be the *R. rubiginosa triflora* of German botanists, and the variety *nemoralis* of Redouté. Jacquin's figure in *Flora Austriaca* seems to be this, but the detached fruit is rounder than I have ever observed it. Crantz describes his R.**, in *Stirpes austriacæ*, with entire sepals; otherwise I perceive no material difference in his account of it.

The American Sweetbriar, *R. suaveolens* of Pursh, is admitted by American botanists to be an imported species, now naturalized in many parts of the United States. Sir James Smith, with his usual liberality, has permitted me to examine the specimens from which he framed his account in Rees's Cyclopædia. They were sent from Pennsylvania by Muhlenberg, and differ in no respect from the European plant. The leaflets are by no means rounder than they often are in this country. Pursh had no specimens; therefore what he says about the undivided calyx was probably taken from Andrews's wretched figure; on which, it is evident, no reliance whatever can be placed.

R. umbellata is very common in the gardens, with flowers in a semidouble state. Its aspect is that of *R. caucasea*. I have counted as many as forty flowers in

one bunch, and all of them producing fruit. Its more robust mode of growth, and having the ramifications of the inflorescence closely covered with setæ and straight prickles, which are also scattered all over the tube of the calyx and sepals, are sufficient to point it out. Roth mistook it for *R. sempervirens;* and Rau appears not to have understood the latter much better, as I shall have occasion to show hereafter. It is the *R. eglanteria cymosa* of Woods.

My next variety δ is the *R. grandiflora* of Wallroth, and referred here not without considerable hesitation. His description answers pretty well to *var.* ϑ, but he says the fruit is "demum atro-purpureus" and flowers "roseo-purpurei." Moreover the large size of the latter and the leaves very green and nearly without down are not characteristic of *R. rubiginosa inodora.*

When I first received ε from Mr. Hooker, who gathered it near Seez, I did not doubt it would prove a distinct species, distinguished by its zigzag branches, very broad round leaves, and perfectly glabrous styles. The latter peculiarity is, however, not unfrequent in *R. rubiginosa micrantha,* which always has a less quantity of pubescence on that part than the common sweetbriar. More extended observations have also convinced me of the insufficiency of the shape of the leaves and mode of ramification, both of which may perhaps be owing to accidental circumstances. The description of *R. montana* in the supplement to the *Flore Française* is quite applicable to this, especially the "aiguillons rares, épars, droits, assez grêles—ovaire ovoïde, à peu près sphérique, un peu hérissé, surtout vers sa base." Villars's *R. montana* must be a widely different species, for he describes it with columnar styles. See *R. arvensis.*

I am acquainted with ζ only from Rau's description. He says it is two or three feet high, with fewer branches than the others. *Prickles* of the branchlets usually two together, slender and straightish. *Leaflets* roundish, scarcely longer than the prickles. *Tube of*

the calyx roundish, smooth. *Sepals* divided, glandular. *Flowers* solitary, small, deep red.

I really wish some permanent character could be found for the *R. sepium* of Thuilliers. It is the plant to which Mr. Woods alludes under his *R. eglanteria*, as having been brought from the South of France by Mr. Hooker. It grows there by waysides, in hot, dry places, in great abundance. It is altogether a smaller plant, with dark green leaflets almost always acute at each end, slender prickles and very zigzag branches. The fruit is perfectly smooth as well as the peduncles, and the divisions of the sepals are unusually narrow and numerous. But, unfortunately, in a specimen from the vicinity of Nismes the transition from this to *R. rubiginosa vulgaris* is so complete, that it is impossible to say which it most resembles—some of the leaflets being rounded and some acute. Yet it came from the same bush as the others whose appearance is so dissimilar. Desvaux is my authority for the three synonyms of Merat.

R. Borreri of Woods, which appears to be the same as *R. inodora* of Agardh's *Novitiæ*, has given me more trouble than even the interminable varieties of *R. canina*. It is a puzzle between the latter and *rubiginosa*, and, I do think, is equally referable to either. It is not unfrequent in the neighbourhood of Halesworth with smaller leaves than ordinary, but unequivocally tinged at the edge with red. Its mode of growth and prickles are like *rubiginosa*, but its *sepals* are deciduous and leaves often without glands. Sometimes its serratures diverge, sometimes point towards the end of the leaflet. Mr. Lyell has *R. Borreri* from Mr. Borrer growing by the side of *R. micrantha*, and the difference is very trifling. It is by the persuasion of the former gentleman that I have at length placed it here; for I certainly believed I had traced it into *R. canina* α. Pallas's *R. villosa* answers precisely to this; nor does Agardh's *R. inodora* appear to differ in any respect, unless in his calling the fruit purple.

50. ROSA pulverulenta.

R. ramulis glandulosis, foliis utrinque pruinosis: superioribus subverticillatis.

R. pulverulenta *Bieb. taur. cauc.* 1. 399. *Poir. suppl. enc. in l.*

Hab. in collibus circa acidulam Narzana Caucasi subalpini, (Bieb.) *(v. v. c. fl. delaps.)*

A low stiff shrub. *Prickles* straightish, strong, those of the ramuli intermixed with numerous short tender setæ, tipped with a grey gland. *Leaves* rather hairy: *stipulæ* narrow, spreading, glandular, somewhat undulated; *petiole* prickly, glandular; *leaflets* 5-7, oval, pointed, doubly serrated, frosted all over with grey glands, their odour oily unlike that of *R. rubiginosa, (sui generis)*. *Flowers* solitary, pale red, almost sessile, involucrated by about four approximated, horizontally spreading, reduced leaves, rarely having bracteæ; *peduncles* slightly pubescent; *tube of the calyx* roundish, naked; *sepals* spreading, foliaceous, with very numerous equal narrow segments; *disk* almost obliterated and mouth wide; *styles* very villous. *Fruit* ovate, smooth, bright red, crowned with the narrowed, connivent, glandular sepals, its peduncle with no hairs. *Lyell's MSS.*

A very curious plant, for which I am obliged to Mr. Lyell. It was imported by Loddiges under the name of *R. præcox.*

From *R. rubiginosa* it is very distinct, as indeed it is from every thing else. The approximated floral leaves, grey with glands on their upper surface, and its dwarf, stunted habit distinguish it without difficulty.

Native of the subalpine hills of Caucasus, where it was gathered by Bieberstein.

51. ROSA cuspidata.

R. sepalis hispidis in cuspide lineari-lanceolato serrato ipsis longiore productis.

R. cuspidata *Bieb. taur. cauc.* 1. 396. *Poir. enc. bot. suppl.*

Hab. in aggeribus inter vineas circa oppidum Kisljar. Floret Junio. (Bieb.)

Two or three feet high, much branched. *Prickles* very strong, much dilated at the base, hooked, and scattered. *Stipules* acute, glandular on the outside; *petioles* prickly and glandular; *leaflets* 7, ovate-lanceolate, acute, finely and doubly serrated, smooth above, hairy beneath. *Flowers* numerous, the size of *R. canina; peduncles, tube of the calyx*, and *sepals* very rough with glands; the latter with a linear-lanceolate, serrated point, longer than themselves, at the base pinnatifid; *petals* white; *styles* hairy, much shorter than the stamens. *Fruit* globose, hispid, dark purple? *(atrocærulei.) Bieberstein.*

This is known only from the above description of Bieberstein. I have little hesitation in referring it to this division, on account of the glands on the stipulæ and petiole. A similar tendency to produce the remarkable sepals from which it has been named, is evident in *R. pulverulenta.*

52. ROSA glutinosa.

R. ramulis pilosis, foliolis incanis suborbiculatis viscosis.

R. pumila alpina, pimpinellæ exactè foliis sparsis, spinis incurvis, aquatè purpurea; *Cupan. panph. ed.* 1. *t.* 61. ex Smith.

R. cretica montana, foliis subrotundis glutinosis et villosis *Tourn! cor.* 43.

R. glutinosa *Smith! prodr. fl. græc.* 1. 348.

R. rubiginosa cretica *Redout. ros.* 1. 93. 125. *t.* 47.

Hab. in Parnasso, *Sibthorp;* Siciliæ montibus, (Cupani); Cretæ, *Tournefort, (v. s. sp. herb. Smith & Banks.)*

(*Stem* is low and bushy, with numerous stout branches, *Smith);* the old ones as thick as a goose quill, without down, defended by strong, close, unequal, falcate prickles; the young ones downy, with smaller and more slender prickles, which are often very densely aggregated under the stipulæ. *Leaves* hoary; *stipulæ* much dilated upwards, concave, without glands, except at their edge, which is nearly entire; *petioles* with a few little prickles and glands; *leaflets* 3-7, flat, roundish, small, with coarse nearly simple serratures, and a few glands on the under side, (glandular and viscid on both sides. *Flowers* small, pale blush, solitary, on short, bristly viscid stalks, *Smith).* *Fruit* without bracteæ, scarlet, covered all over, as is its stalk, with little stiff prickles, crowned by the connivent, nearly simple, hoary sepals.

For the synonym of Cupani I trust to Sir James Smith. No copy of his *Panphyton* containing t. 61 has fallen in my way. This is very nearly allied to *R. rubiginosa,* but differs in having hoary leaves and pubescent branchlets; a very curious and important character. It appears from Redouté's figure, which is less happy than usual, to be cultivated in France; our own gardens it has not yet reached.

53. ROSA Montezumæ.

R. ramis inermibus.

R. Montezumæ *Humb. et Bonpl. nov. gen. & sp. tom.* 3. *ined. Redout. ros.* 1. 55. *t.* 16.

Hab. in jugo montium Mexicæ sub gradu 19° latitudinis septentrionalis, altitudine plusquam 9300 pedum, in cacumine Cerro-Ventoso juxta S. Petri fodinam, (H. & B.)

Unarmed, with smooth branches. *Stipules* fringed with glands; *petioles* downy, armed with many little prickles; *leaflets* 5, oval, acute, naked on both sides, dark green above, paler beneath. *Flowers* pale red, solitary, without bracteæ, sweetscented; *peduncle* and elliptical *tube of the calyx* naked; *sepals* compound, dilated at the end. *Redout. l. c.*

So incomplete is the account given in Redouté's work of this most interesting plant, that it is quite impracticable to ascertain with certainty, even the division in which it should be arranged. The figure is probably taken from a dried specimen and is very like *R. rubiginosa;* yet the leaves are described as naked on both sides. If it be really an unarmed species, it will be easy to characterize it; but if, as I believe, it is only an unarmed branch that is figured, and if it do not belong to this division, it must be placed in the next; but then I do not perceive how it is to be distinguished from *R. canina.* The petioles are said to be prickly, and I know no instance of a species without prickles on the branches, producing them on any other part.

It was found on the chain of porphyry mountains which bound the valley of Mexico on the north, at the elevation of 1460 toises, on the top of Cerro Ventoso near the mine of San Pedro. The thermometer in May from 10° to 11° of Reaumur.

Div. IX. *Caninæ*. Aculei æquales adunci. Foliola ovata eglandulosa, serraturis conniventibus. Sepala decidua. Discus incrassatus faucem claudens. Surculi majorum arcuati.

The disunion of styles will prevent any individuals of this section from being confounded with the next. The essential differences which distinguish it from the preceding Divisions have been explained under their respective heads. Mr. Sabine has a plant of *R. canina* which produces setæ; but this is a solitary exception and cannot affect the general importance of the character I have assigned to the section.

54. ROSA caucasea. Tab. 11.

R. foliolis mollibus ovatis, ovariis 50-60.

R. caucasica *Pall. ross.* 62. *Bieb. taur. cauc.* 1. 400. *Ait! kew. ed. alt.* 3. 266. *Smith in Rees in l.*

ab. in Iberia (Steven.) *(v. v. c.)*

This has so great a resemblance to many states of the next species, that I almost doubt whether they really be distinct. The present plant may be usually distinguished by a very robust habit, broad and soft leaves, and flowers growing in bunches. The fruit is very large and its flesh is soft. *R. canina*, it is true, sometimes has the greater part of these peculiarities, but its leaves are not soft; on the contrary, their pubescence is harsh. The most certain test, however, of the species seems to be its unusually numerous ovaria, which in the central flower are not less than 50 but frequently more than 60; while *canina* has rarely more than 25.

Pallas must have had a very imperfect specimen before him, as he describes his plant without prickles. Bieberstein appears to have ascertained the incorrectness of this, and properly corrects him.

The serratures are always double.

55. ROSA canina.

R. foliolis rigidis ovatis, ovariis 20-30.

R. canina *Linn! sp.* 704. *Bull. par. t.* 276. *All. pedem.* 2. 139. *Willd. sp.* 2. 1077. *Mönch meth.* 689. *Lawr. tt.* 60 & 81. *Wib. werth.* 264. *Rössig. ros. tt.* 21. 29. *Curt. Lond. t.* 299. *Afz. tent. prim. Smith! britt. n.* 6. *Eng. bot!* 992. *Svensk bot. t.* 29. *Gmel. bad. als.* 2. 422. *Brot. lus.* 1. 340. *Bieb. taur. cauc.* 1. 399. *Schrank monac. c. fig. Fl. dan. t.* 555. *Smith in Rees in l. Woods! in act. linn.* 12. 223. *Rau enum.* 71.

R. dumalis *Bechst. forstb.* 241 & 939 ex *Rau.*

L'eglantier *Regn. bot. c. fig.*

R. andegavensis *Bat. main. & loir.* 189. *suppl.* 29. *Redout. ros.* 2. 9. *t.* 3.

R. glauca *Lois. in Desv. journ.?*

R. arvensis *Schranck monac. c. fig.*

R. glaucescens *Mer. par.* 192.

R. nitens *Mer. l. c.*

R. teneriffensis *Donn! cant. ed.* 8. 169.

R. senticosa *Achar. in kongl. vetensk. acad. handl.* 34. 91. *t.* 3.

R. surculosa *Woods! in act. linn.* 12. 228.

R. sarmentacea *Woods! in act. linn.* 12. 213.

R. nuda *Woods! l. c.* 12. 205.

R. affinis *Rau enum.* 79.

R. glaucophylla *Winch! ess. geogr.* 45.

β *aciphylla*, pumila, foliis utrinque impubibus floribusque multo minoribus.

R. aciphylla *Rau enum.* 69. *c. fig. Redout. ros.* 2. 31. *t.* 13.

γ *ægyptiaca*, foliolis latè ovatis, grossè serratis utrinque impubibus, receptaculo elongato.

R. indica *Forsk. p.* cxiii?

δ *collina*, foliolis infra v. petiolo hirsutis, sepalis pedunculisque hispidis, disco conico.

R. collina *Jacq! austr.* 2. 58. *t.* 197. *All. pedem.* 2 140. *Willd. sp.* 2. 1078. *Bieb. taur. cauc.* 1. 399. *Ait! kew.* 3. 266. *Mer. par.* 191. *Woods! in act. linn.* 12. 219. *Rau enum.* 163. *Redout. ros.* 2. 13. *t.* 5.

R. umbellata *Leyser pal.* 435.

R. fastigiata *Bat. main. & loir. suppl.* 30. *D. C. suppl.* 535.

R. platyphylla *Rau enum.* 82.

R. psilophylla *Rau l. c.* 191.

R. solstitialis *Besser. galic. primit.* 1. 324.

ε *dumetorum*, foliolis utrinque hirsutis, sepalis pedunculisque glabris.

R. sepium *Borkh. forstb.* 1527 ex *Rau enum.* 90.

R. dumetorum *Thuill. par.* 250. *D. C. suppl.* 534. *Rau enum.* 85. *Woods! in act. linn.* 12. 217.

R. corymbifera *Gmel. bad. als.* 2. 424.

R. leucantha *Lois. not.* 82. *Bat. l. c.* 32. *Mer. par.* 193. *D. C. suppl.* 535. *Redout. ros.* 1. 129. *t.* 49.

R. obtusifolia *Desv. journ.* 2. 317.

R. leucochroa *Desv. l. c. t.* 15. *D. C. hort. monsp.* 138.

R. stylosa β *Desv. l. c.*

R. bractescens *Woods! in act. linn.* 12. 216.

ζ *cæsia*, foliolis cæsiis utrinque pilosis, tubo calycis elliptico.

R. cæsia *Eng. bot.!* t. 2367. *Smith.! in Rees in l. Woods.! in act. linn.* 12. 212.

Hab. sepibus ruderatisque totius Europæ Asiæq. septentrionalis, pro loco polymorpha; Teneriffæ *Masson*; β circa Wirceburgum (Rau); et verosimiliter alibi locis sterilibus; γ Ægypto? *Forskahl*; ζ Scotiæ montibus borealis, *Borrer, Jackson, (v. v. sp. ——, γ herb. Banks).*

A straggling briar six or seven feet high. The *branches* bright green, reddish brown on the sunny side; armed with strong, scattered, hooked, nearly equal prickles (rarely straight, and then much closer together) and no setæ. *Leaves* distant, pale or dark green, frequently tinged with red, in exposed situations usually much blistered by the sun, quite free from pubescence; *stipules* rather dilated, a little reflexed, acute-pointed; *petiole* armed with a few, little, hooked prickles; *leaflets* 5-7, ovate or oblong, acute or rounded, sessile or subsessile, flat or concave, even or rugose, coarsely or finely, simply or doubly serrated, the serratures always acute, without glands, and converging. *Cymes* one or many flowered; *bracteæ* ovate-lanceolate, appressed, acute, concave or flattish, finely toothed and glandular at the edge; *peduncles* and *calyx* smooth; *tube* ovate; *sepals* spreading, sharp-pointed, deciduous, somewhat divided; *petals* obcordate, concave; *disk* very thick, elevated; *ovaries* 20-30; *styles* nearly smooth, distinct, included or a little exserted. *Fruit* ovate or oblong, scarlet, shining, without any bloom; *pericarps* large, uneven.

A more striking instance of unimportant characters being made the test of species than the preceding list of synonyms presents, is not to be found in the whole vegetable kingdom. Surely it is not surprising that the most common species of the genus, whose fruit is scarcely ripe before it is devoured by small birds, and deposited by them in every possible variety of soil and situation, should frequently assume features considerably different from its more general appearance. And

yet on such differences, which in *less* variable genera would scarcely have been trusted, have writers on Roses attempted to establish their species. Pubescence has received much attention; on its absence, presence and quantity *R. collina*, *dumetorum* and *canina* of authors and *bractescens* of Woods are divided from each other. Yet examine for a moment *R. canina*, as it grows in every hedge. A careful observer will presently discover on the same plant some leaves entirely naked, and others in which the midrib and primary veins of the under surface are clothed with hairs. Here, then, is the first approach to pubescence, which, becoming increased in quantity, distinguishes *R. collina*; this usually has hairs on the upper surface of its young leaves, but none on the old ones. In *R. dumetorum* there is a further increase of pubescence, which then covers both sides of the leaves, and, becoming very dense and permanent, forms *R. bractescens* of Woods. The distinction between simple and double serratures in this species I confess myself unable to understand. I have attempted to draw a line of separation between them, but without success. They have no limits; for no one can always say whether the serratures of a particular leaf are simple or double. But the value of these and similar characters has been already discussed. It is therefore unnecessary now to extend their examination.

The foregoing description applies strictly to *R. canina* α. When this is weak and grows in woods or shady places among grass, it has straight prickles and becomes *R. nuda* of Woods; with very distant aculei it is *R. andegavensis* of Batard; with very dense ones it is *R. canina* δ of Rau. The stem is slightly setigerous in a plant in Mr. Sabine's garden. Another of the same collection has the leaves bipinnate. The leaflets are dull in *R. sarmentacea* and *canina* β of Woods; much rounded, with blunt serratures, in a plant from Mr. Lyell; irregularly serrated in *R. sarmentacea* of Woods and *affinis* of Rau; pubescent on the upper surface in *affinis*. The sepals are assurgent, and disposed

to become persistent in Mr. Winch's *glaucophylla*; nearly simple in *R. canina* ♀ of Woods; and glandular on the outside in *glaucophylla*. The disk is flat in *R. surculosa* β of Woods. The fruit is nearly round in *R. canina* ε and *sarmentacea* δ of Woods; at the same time very small in *R. teneriffensis* of Donn; and rough in *R. canina* γ of Woods and *andegavensis* of Batard. In the latter the peduncles are hispid. Such is the most common *R. canina* and that with which Linnæus was best acquainted. The Teneriffe plant is very impatient of cold, flowers sparingly, and produces little misshapen fruit. Mr. Winch's *glaucophylla* is a remarkable variety with obovate fruit and nearly persistent sepals.

The difference of β seems to be nothing more than the smaller size of every part; an appearance which is by no means uncommon in this country, although I have never observed it in so remarkable a degree as Rau's figure indicates. The specimen figured by Redouté is evidently an approach to a more robust mode of growth. Perhaps it is the same sort of variety of *canina*, as the dwarf Chinese Rose of the gardens is of *R. Indica*.

I am acquainted with γ only from a specimen in Sir Joseph Banks's herbarium, from Forskahl, marked *R. ægyptiaca*. It is distinguished by the unusually deep serratures of the leaves and its very long receptacle. Forskahl mentions no Rose as having been found by him in Egypt; can this, then, be what he calls *R. indica*, found on the mountains of Arabia felix?

Δ has the lower sides of the leaves hairy, the upper surface shining, and the sepals and flowerstalks usually hispid. In other respects it is not to be distinguished from *R. canina* α. The *R. collina* of English Botany belongs to a very different plant, *R. systyla*. *R. platyphylla* of Rau has smooth peduncles; and *R. psilophylla* of the same author has downy petioles with a naked under-surface to the leaves. *R. fastigiata* of Batard has no character whatever to distinguish it.

To *R. dumetorum* of Thuilliers the succeeding list of synonyms may be referred. It is distinguished from *canina* α by its dull grey hue, occasioned by the dense pubescence of every part of the leaves: but by nothing else. It is more frequent in North Britain than elsewhere. The petioles are sometimes unarmed, as in *R. sepium* of Rau. *R. leucochroa* has the styles a little exserted and united by their hairs. Care must be taken not to confound this with *R. systyla*, whose styles are smooth and consequently cohere from some other cause than the intertexture of their hairs. I have specimens from Mr. Lyell of a very grey Rose gathered at Kinnordy, with nearly simple sepals, which must be referred here. *R. bractescens* of Woods has very short peduncles and large bracteæ; but I have examined Mr. Woods's own specimen in the collection of the Linnæan Society without being able to distinguish it from *R. dumetorum*. Every diversity of form of bracteæ and length of peduncle may be observed in the hairy-leaved *canina* of Scotland.

R. cæsia is a curious plant, first taken up in English Botany. It is scarcely found out of the highlands of Scotland and there very sparingly. Its very glaucous hue distinguishes it.

There is a remarkable peculiarity in *R. canina*, that the further to the North any variety of that species is found, the more villous are the styles; and the less so as it proceeds southwards; hair entirely vanishes from those organs in Madeira.

Its long rambling shoots are sometimes applied to the same purposes as those of *Rubus fruticosus*; but they are inferior, being more brittle. The Tartars boil the twigs and leaves for tea; some Russians also have this custom, especially in Siberia, and praise its reviving stomachic qualities. Those of the Volga prepare a spirit from the flowers by fermentation. In the Ukraine these are made into a preserve with honey and sugar.

56. ROSA rubrifolia.

R. aculeis parvis distantibus, foliolis ovatis ramisq. glaucis opacis discoloribus, ovariis 20-30.

R. rubrifolia *Villars dauph.* 3. 549. *Bellardi in act. taur.* 1790. 229. *t.* 9. *Willd. sp.* 2. 1075. *Jacq. fragm.* 70. *t.* 106. *opt.* *Picot Lapeyr. pyren.* 284. *Smith in Rees in l.* *Redout. ros.* 1. 35. *t.* 4. *Lindley in Bot. reg. t.* 430.

R. n. 1101 *β Hall. helv.*

R. multiflora *Reyn. act. Laus.* 1. 70. *t.* 6.

R. rubicunda *Hall. fil. in Röm. arch. b.* 1. *st.* 2. *p.* 6.

R. canina *β Suter helv.* 1. 302.

R. glauca *Desf. cat. H. P.* 175.

R. glaucescens *Wulf. in Röm. arch.* 3. 376.

R. lurida *Andrews's roses.*

R. cinnamomea *γ Redout. ros.* 1. 134.

Hab. in sylvis circa Lans, (Villars); in alpibus Sabaudiæ, (Bellardi), *Hooker;* Helvetiæ, (Haller) *Hooker;* Austria ad Gutenstein, (Jacquin); Pyrenæis, (Lapeyrouse); montibus Alverniæ, (Redouté); *(v. v. c. & s. sp.)*

Stems deep red or purple, covered with a pale bloom and armed with small, short, pale, hooked, equal prickles, which are very dense but not larger on the rootshoots. *Leaves* tinged with red, very glaucous, rugose, opaque. *Flowers* deep red, small; *sepals* very narrow and longer than the *petals; disk* much thickened, almost closing the orifice. *Fruit* oblong with very tender flesh. Otherwise with the characters of *R. canina*, from which, nevertheless, its whole appearance is dissimilar. If proper attention be paid to

the dull glaucous-red bloom of the branches, their small prickles, and the long sepals, it will never be confounded with *canina*. It has been strangely reduced to *R. cinnamomea* by Thory; on what grounds I am quite at a loss even to conjecture.

57. ROSA sericea. Tab. 12.

R. aculeis stipularibus compressis: superioribus runcinatis, foliolis oblongis obtusis apice serratis subtus sericeis.

Hab. in Gossam Than, *Wallich. (v. s. s. herb. Banks.)*

Branches brown, stiff, straight, the old ones very rugose. *Prickles* very large, ovate, compressed, their point turned upwards, placed under the stipulæ. *Leaves* very close; *stipulæ* long, narrow, concave, without pubescence, fringed or naked at the edge, falcate and dilated at the end; *petioles* very slightly downy or naked, unarmed, or furnished with a few setæ and straight prickles having a broad base; *leaflets* 7-11, oblong, flattish, waved, green and naked above, paler with the rib and principal veins silky beneath; at the end, which is blunt, simply and deeply toothed: the serratures acuminated. The *petiole* in some specimens is unusually elongated before the first leaflet is set on. *Flowers* solitary, concave, without bracteæ, erect or nodding: *peduncle* and *calyx* naked; *tube* ovate; *sepals* ovate with a very narrow point, slightly pubescent.

This is the first of a set of species found only in the warmer countries of Asia, but not materially receding from the characters of the division. It is remarkable for the silky under side of its oblong leaves which are

blunt at each end, and serrated only at the tip, but there deeply.

Discovered very recently in Gossam Than, and with *R. macrophylla* found in the same district, it exhibits the nearest approach among the Indian Roses to those of Europe.

The specimens from which my description and figure are taken are in the rich collection of Sir Joseph Banks.

58. ROSA indica.

R. foliolis ellipticis acuminatis glabris crenato-serratis subtus glaucis, ovariis 40-50.

α vulgaris, fructu turbinato.

R. indica *Lin! sp.* 705. *Willd. sp.* 2. 1079. *Lawr ros. t.* 26. *Ait! kew. ed. alt.* 3. 266. *Smith! in Rees in l. Redout. ros.* 1. 51. *t.* 14. 2. 35. *t.* 15.

R. sinica *Linn! syst. veg. ed.* 13. 398. *Smith! in Rees in l.*

R. semperflorens carnea *Röss. ros. t.* 19.

β odoratissima, fructu ovato, floribus odoratissimis.

R. odoratissima *Sweet! hort. sub. lond.*

R. indica fragrans *Redout. l. c.* 61. *t.* 19.

γ pumila, fruticulus, omni parte minor.

R. indica pumila *Redout. ros.* 1. 115. *t.* 42.

δ longifolia, foliis lanceolatis, ramis subinermibus.

R. longifolia *Willd. sp.* 2. 1067. *Redout. ros.* 2. 27. *t.* 12.

Hab. in China juxta Cantonem Sinarum, *Staunton. (v. v. c. & s. sp. herb. Banks.)*

Branches stout, glaucous green, armed with brown, scattered, compressed, hooked, equal prickles. *Leaves* shining, without pubescence; *stipules* very narrow, subulate and glandular at the point; *petioles* rough with setæ and little short, hooked prickles; *leaflets* 3-5, even, elliptic, acuminate, nearly simply crenato-serrated, above dark green, glaucous beneath. *Flowers* very numerous, usually semi-double; *bracteæ* narrow, lanceolate, without pubescence, toothletted, glandular; *peduncles* long, rough; *tube of the calyx* oblong, naked; *sepals* deciduous, nearly simple, ovate, pointed, glandular on the outside; *petals* obcordate, concave; *stamens* 105-110; *disk* a thick flattened cone; *ovaria* 40-50; *styles* nearly naked, exserted, very slender, distinct. *Fruit* obovate, scarlet.

It is now, perhaps, too late to inquire what was really intended by Linnæus for *R. indica*, since his specific character and description will agree with no species from China at present known; and the figure of Petiver which he quotes to this, in which he is followed by Willdenow, belongs to a widely different plant, very nearly allied to *R. Banksiæ*, and which I have called *R. microcarpa*. I have, however, examined his specimen, which I see no reason to doubt belonging to this species. The specimen which Sir James Smith considers to have been the foundation of *R. sinica* I have also been permitted to see, and I feel little hesitation in pronouncing it to be a monstrous state of the species before us. The stipulæ are narrow, pointed and finely toothed at the edge; the prickles are straight, very slender and unequal, which may be reasonably expected on *R. indica* in so weak a state as this *R. sinica* evidently is. That name, therefore, becomes disengaged, and I have retained it for the plant which was distinguished by it in Hortus Kewensis.

The delightfully fragrant "Sweet-scented Chinese Rose" of the gardens is a variety, with ovate fruit and a dwarfer habit. It is right that cultivators should know that there are two sorts of this, of which the

most common has a very inferior perfume to the other, which is propagated with more difficulty.

The willow-leaved Chinese Rose, *R. longifolia*, is another variety, but it has little to recommend it to notice.

I can by no means agree with the editor of Redouté's Roses, in considering this a variety of *R. semperflorens*, from which it differs in many important characters, as will be seen under the following species.

59. ROSA semperflorens.

R. foliolis ovato-lanceolatis crenato-serratis, ovariis 15, petalis integris.

R. indica *Burm. ind.* 117 ?

R. chinensis *Jacq. obs.* 3. 7. *t.* 55. *Willd. sp.* 2. 1078. *Smith in Rees in l.*

R. semperflorens *Curt. mag.* 284. *Willd. sp.* 2. 1078. *Lawr. ros. t.* 23. *Mönch meth.* 290. *Röss. ros. t.* 12. *Sm! exot. bot.* 2. *t.* 91. *Jacq. schönbr.* 3. *t.* 281. *Ait! kew. ed. alt.* 3. 266. *Smith! in Rees in l.*

R. diversifolia *Vent. cels. t.* 35.

R. bengalensis *Pers. syn.* 2. 50.

R. indica *Redout. ros.* 1. 49. *t.* 13.—123. *t.* 46.—2. 37. *t.* 16.

Hab. in China, *Ekeberg. (v. v. c. & s. sp. herb. Banks.)*

A spreading, elegant shrub. *Branches* slender, dark green, armed with scattered, compressed, hooked prickles and a very few glands. *Leaves* shining, distant, deeply stained with purple; *stipulæ* narrow, flat,

glandular; *petioles* without pubescence, glandular and slightly setigerous; *leaflets* 3-5, ovate-lanceolate, simply crenato-serrate, flat above, glaucous and slightly downy beneath: the lowest pair is very small and usually wanting. *Flowers* solitary, deep crimson; *bracteæ* narrow, lanceolate, serrated, fringed with glands; *peduncles* rough with minute glands; *tube of the calyx* oblong, naked; *sepals* reflexed, deciduous, narrow, compound, rough on the outside; *petals* entire, spreading, nearly flat; *stamens* 50, deciduous; *disk* conical, thickened; *ovaries* 15; *styles* very slender, nearly naked, exserted, distinct. *Fruit* spherical.

This is one of the species remarkable for having stamens which drop off nearly at the same time with the petals, which I am not aware to be the case in any semi-double state of *R. indica*. From that species it may be distinguished by its more slender branches, deep-red flowers, and more membranous leaves, which are usually stained more or less with crimson. There is also the important difference in number of ovaries, which are not more than 15 in this plant, and vary from 40 to 50 in *R. indica*.

We have many splendid varieties in the gardens with semi-double crimson flowers, and the French appear to have some others still more beautiful which have not yet been imported.

60. ROSA Lawranceana.

R. nana, foliolis ovatis acutis argutè serratis, petalis acuminatis, ovariis 7-8.

R. semperflorens minima *Sims. bot. mag. n.* 1762.

R. pusilla *Mauritius cat. p.* 15?

R. Lawranceana *Sweet! hort. sub. lond.*

Hab. verosimiliter in China. *(v. v. c.)*

A very low, compact, little shrub, rarely exceeding a foot in height. The *prickles* are large, stout, and nearly straight. *Leaflets* ovate, acute, flat, very finely toothed. *Petals* small, pale blush, pointed; *ovaries* 7-8. Otherwise with the characters of *R. semperflorens*, from which I nevertheless have no hesitation in separating it. The difference in number of ovaries in this division appears constant, and therefore important. Mr. Sweet introduced it from the Mauritius, some years ago, and it may be the *R. pusilla* of the catalogue of the Botanic Garden there. China is probably its native country, as it approaches so very nearly to *R. semperflorens.*

Div. X. *Systylæ.* Styli in columnam elongatam cohærentes. Stipulæ adnatæ.

Habit nearly the same as that of the last division. Leaves frequently evergreen.

61. ROSA systyla.

R. surculis assurgentibus, aculeis validis aduncis.

α *ovata*, foliolis ovatis, fructu oblongo.

R. collina *Eng. bot.! t.* 1895. *Smith! in Rees in l.*

R. systyla *Bat. main. et loir. suppl.* 31. *Woods! in act. linn.* 12. 230.

R. stylosa *Desv. journ.* 2. 317. *D. Cand. hort. monsp.* 138.

R. brevistyla *D. C. suppl. fl. fr.* 537?

R. dibracteata *D. C. l. c.*

β *lanceolata*, foliolis ovato-lanceolatis, fructu sphærico.

γ *Monsoniæ*, caule humiliore: florifero erecto multifloro, ramis rarò setigeris.

Hab. α in Anglia; Gallia, (Batard, Decand.); β Hibernia australi, *Drummond;* γ Angliâ juxta Watford, *Domina Monro. (v. v. sp.; β. s. sp.; γ. v. c. hort. Sabine.)*

A shrub with the habit and for the most part with the characters of *R. canina*, but differing chiefly in having its styles united into a long smooth column, and more flowers in a cluster.

Variety β was sent to Mr. Hooker from the South of Ireland by Mr. Drummond. It differs in having nearly round fruit, and long rugose shining leaves.

Monsoniæ is a very charming variety found in a hedge at Watford by Miss Monro. By the wish of Mr. Sabine it is named after Lady Monson, to whose garden it was originally removed and whence it has since been obtained. It appears to be precisely the same sort of variety of *systyla* as *hybrida* is of *arvensis*, and may be distinguished from the two preceding varieties by its dwarfer habit, flower-bearing shoots being erect, stiff, and terminated by an unusually large bunch of the most elegant flowers; its fruit is more orange-red than that of the true *systyla*.

62. ROSA arvensis.

R. surculis flagelliformibus, aculeis inæqualibus falcatis, foliolis subtus glaucis.

R. campestris repens alba *Bauh. pin.* 484.

R. sylvestris, &c. *Bauh. hist.* 2. 244.

R. candida *Scop. carn.* 1. 354.

R. arvensis *Huds. angl. ed.* 1. 192. *Linn. mant.* 2. 245. *All. pedem.* 2. 139. *Willd. sp.* 2. 1066. *Lawr. ros. t.* 86. *Smith! britt.* 2. 538. *Eng. bot!* 188. *Pers. syn.* 2. 47. *Ait! kew.* 3. 259. *Smith! in Rees in l. Woods! in act. linn.* 12. 232. *Redout. ros.* 1. 89. *t.* 32. *Bot. mag. t.* 2054.

R. n. 1102 *Hall. helv.*

R. sylvestris *Herm. diss.* 10. *Poll. palat.* 51. *Roth. cat. bot.* 1. 59.

R. scandens *Mönch weiss. pfl.* 118 fide *Pohl.*

R. herporhodon *Ehr! beitr.* 2. 69.

R. Halleri *Krock. siles.* 2. 150.

R. fusca *Mönch meth.* 688.

R. serpens *Ehr. arb.* 35. *Wibel werth.* 265.

R. sempervirens *Röss. ros. t.* 32.

R. repens *Gmel. bad. als.* 2. 418. *Willd. enum.* 547. *Jacq. fragm.* 69. *t.* 104 *opt.* *Rau enum.* 40.

β montana, pumila, fructu hispidulo.

R. montana *Vill. dauph.* 3. 547. *Suter helv.* 1. 300. *Willd. sp.* 2. 1076. *Smith in Rees in l?*

γ hybrida, surculis crassioribus et brevioribus: florifero erecto multifloro, ramis sparsim setigeris, stylis discretis.

R. hybrida *Schleich. cat.*

R. geminata *Rau enum.* 39.

R. gallica hybrida *Ser. mel. bot. n.* 1. *p.* 39.

Hab. in Angliæ sepibus; Pedemontii, (Allioni); Palatinatûs, (Pollich); Germaniæ, (Roth); Silesiæ, (Krocker); Helvetiæ planitiebus, *Hooker*; *β* in Delphinatûs montibus, (Villars); Helvetiæ, (Suter). *(v. v. s.)*

Branches flagelliform, procumbent, slender, dull glaucous-purple, armed with scattered, falcate, or straightish, equal prickles, those of the old shoots almost white, of the young ones smaller and red, sometimes none (in weak specimens). *Leaves* distant, dark green, or, on a chalky soil, yellowish; *stipules* narrow, flat, naked, fringed with glands, red in the middle; *petioles* pubescent, with scattered glands and little falcate, dorsal prickles; *leaflets* 5-7, flat, ovate, somewhat waved, simply serrated, very glaucous beneath; the rib somewhat hairy. *Flowers* solitary on the branchlets, numerous on the rootshoots, white with a yellow base, and a slight scent, at first cyathiform, afterwards more open; *peduncles* rough with glands and a very few setæ; *tube of the calyx* ovate, naked; *sepals* short, ovate, concave, a little divided, those which are so, rough with glands; *petals* obovate, emarginate; *stamens* persistent; *disk* elevated, fleshy; *ovaries* 15-25; *styles* united into a long smooth column. *Fruit* scarlet, round or oblong.

A very common plant in many parts of England, adorning the hedges in the summer months with its elegant, snowy bloom. The flowers are much more cup-shaped than those of *systyla*, or indeed of any other British Rose. Mr. Sabine has a variety with pink flowers.

Dr. Afzelius considered the Linnæan *arvensis* to be something different from our plant, which does not grow in Sweden; and possibly that variety of *cinnamomea* which is figured in *Flora Danica* under the name of *R. fluvialis*. The Linnæan herbarium throws no light upon this, nor have I any additional facts to offer in illustration of it.

The styles united in a long smooth column, incorrectly described by Sir James Smith as lengthening after flowering, distinguish this from all the British species except the last. From that it differs in having long trailing shoots, not stout assurgent ones, which are dull glaucous green, generally tinged with purple, and not of the bright green colour of *systyla*..

To this species the Ayrshire Rose of the gardens is undoubtedly to be referred, as has already been done by Dr. Sims. Of this plant, however, there are two sorts; the one sold in the nurseries about London, and cultivated by Mr. Sabine, I suppose is to be considered the real kind; and, as I have just observed, is a variety of *arvensis;* the other, which is cultivated at Kew, is *sempervirens*, from which it does not appear to differ in any respect. This has been considered as the real Ayrshire and published as such under the name of *capreolata* in the Edinburgh Philosophical Journal, by Mr. Neill, who assures us that it received its name from having been first raised at Loudon Castle, Ayrshire, from heps imported from N. America. Without attempting to dispute the accuracy of this, I must observe, that if the seeds were brought from America, they were carried thither originally from Europe.

From *R. sempervirens* there can be no difficulty in distinguishing *arvensis*. The leaves of the former are

shining, evergreen, and set on at short intervals; of the latter opaque, glaucous beneath, deciduous, and covering the branches thinly. The bracteæ of *arvensis* are short and erect, the flowers solitary; of *sempervirens* reflexed with a narrow point and red and shining, the flowers in bunches. The former often produces a callosity at the ramifications which, under favourable circumstances, strikes root; the latter never.

R. montana of Villars is an exceedingly obscure plant; its author describes it with the styles of *arvensis*, and his description answers well to mountain specimens of that plant brought from Switzerland by Mr. Hooker; except in not having hispid fruit. If, however, the *R. montana* of Villars and Suter be not distinct from *arvensis*, there is little reason to suppose that what other botanists have taken for it are so also. The specimens from Schleicher under that name which I have had an opportunity of examining, as far as can be determined from such imperfect morsels, appear to be of *rubiginosa;* and, as Sir James Smith depends upon his authority in this instance, it is not improbable that the plant from which the description in Rees's Cyclopædia was formed, is the same. The account of *R. montana* in the supplement to the Flore Française reads very like *R. rubiginosa* also.

Var. γ I, for a long time, was disposed to consider a distinct species. From its habit it might be thought an hybrid production, between *R. provincialis* and *arvensis*, for in flowers, prickly leaves and mode of growth it seems to partake equally of both. But when I saw the var. *Monsoniæ* of the last species, I was convinced that the present plant bore just the same relation to *arvensis* as that does to the species under which it is placed. I have therefore referred it hither, but in doing so it is necessary to subjoin the principal differences which distinguish it. The *branches* have setæ sparingly mixed among the prickles; *leaflets* larger, oblong-ovate, the younger ones stained with red; *flowers* in bunches, very large, semi-double, of the

most delicate flesh colour; the *styles* long, exserted, but not united. It has been found in the neighbourhood of Wurtzburg by Rau.

The union of styles was long ago pointed out in *R. arvensis* by Lachenal and adopted by Haller and Villars. Afterwards it was strangely neglected, and has only been reconsidered within a few years. M. De Candolle was the first to employ it as a means of forming a natural assemblage among Roses, in his *Hortus Monspeliensis*, where he defines six species from which the last is to be excluded. I have four to add; and *R. setigera* of N. America has the same structure; but, on account of its habit and subulate stipulæ, belongs to my division *Banksianæ*.

63. ROSA abyssinica. Tab. 13.

R. surculis scandentibus, aculeis confertissimis falcatis, foliolis ovatis sempervirentibus, calycibus pedunculisque tomentosis.

R. abyssinica *Brown! in Salt's Abyssin. app. lxiv.*

Hab. in Abyssiniâ *Salt (v. s. sp. herb. Banks et Lambert.)*

This is one of the very few Roses indigenous to Africa. It was first noticed as a distinct species by Mr. Brown, in his appendix to the travels in Abyssinia of Mr. Salt, who discovered it. It can be confounded with nothing except *R. sempervirens*, from which it differs in the following particulars: its *leaflets* are shorter with a little stalk, broader towards the point than at the base; the *petioles* are exceedingly rough with unequal glands and setæ; the *peduncles* and *calyx* are covered over with a thick down; and the *prickles* are exceedingly numerous and strong.

64. ROSA sempervirens.

R. surculis scandentibus, aculeis subæqualibus falcatis, foliis sempervirentibus.

R. sempervirens Jungermanni *Clus. hist.* 2. *Dill. elth.* 326. *t.* 245. *f.* 318.

R. sempervirens *Linn.! sp.* 704. *Mill. dict. n.* 9. *Willd. sp.* 2. 1072. *Lawr. ros. t.* 45. *Pers. syn.* 2. 49. *D. C.! fl. fr.* 4. 446. *Ait.! kew.* 3. 263. *D. C. monsp.* 138. *Smith! in Rees in l. Ker bot. reg. t.* 459.

R. scandens *Mill. dict. n.* 8. *Brot. lusit.* 1. 341.

R. balearica *Desf. cat. h. p. Pers. syn.* 2. 49.

R. atrovirens *Viv. fl. ital.* 4. *t.* 6.

R. capreolata *Neill in Edinb. philos. journ.* 3. 104.

β microphylla, foliolis suborbiculatis.

R. microphylla *Desf. atl.* 1. 401.

Hab. in Gallia australi, *Decandolle;* Lusitania, (Brotero); Italia circa Pæstum abundè, *Woods;* Insulis Balearibus, *Requien;* Greciâ (Sibthorp); *β* circa Tunetam, *Desfont. (v. v. c. & s. sp.)*

A climbing plant with very long, slender, bright green, much divided shoots, reddish on one side, and armed with slender, somewhat hooked red prickles. *Leaves* usually deflexed, very shining, evergreen and without any sort of pubescence; *stipules* narrow, red, reflexed at the end, with a few glands on their edge; *petioles* armed with little curved prickles; *leaflets* 5-7, oval or ovato-lanceolate, flat, simply serrated, bright green on both sides, but much paler beneath. *Flowers* very numerous, white and fragrant; *bracteæ* naked, lanceolate, reflexed, stained with red; *peduncles* naked or glandular; *tube of the calyx* ovate, naked or glandular; *sepals* deciduous, ovate, acuminate, nearly simple,

shorter than the petals, rough with glands; *petals* obcordate, concave; *stamens* 138-140, quickly dropping off; *disk* conical, very thick; *ovaries* 30; *styles* united into a long, hairy column. *Fruit* round, orange-coloured, small.

A very ornamental plant, rapidly forming a compact covering to old pales or buildings against which it is planted. From *R. prostrata* its rambling shoots and hairy styles distinguish it. Viviani's *R. atrovirens* is described with rough and figured with smooth fruit.

The Ayrshire Rose described by Mr. Neill in the Edinburgh Philosophical Journal under the name of *capreolata* does not appear to differ from this, which is not a native of America, but is confined to the South of Europe and North of Africa.

65. ROSA prostrata.

R. surculis prostratis, aculeis subæqualibus falcatis, foliis sempervirentibus, stylis glabris.

R. prostrata *D. C. hort. monsp.* 138. *suppl.* 536.

Hab. in Gallia australi. (Decand.)

This Rose has much resemblance to var. *β* of *sempervirens*, from which it differs in having *styles* absolutely naked; its *tube of the calyx* oval-oblong and not globose; its *stem* prostrate, with scattered somewhat curved prickles; *flowers* either solitary or nearly so. *Decand. l. c.*

Notwithstanding the very great resemblance between the description of this and *sempervirens*, I wish to leave them separate for others who can compare the two to decide. *M. De Candolle* assures me that their aspect is exceedingly dissimilar, and that they do not vary when cultivated.

66. ROSA multiflora.

R. ramulis pedunculis calycibusque tomentosis, foliolis mollibus lanceolatis rugosis, stipulis pectinatis.

R. multiflora *Thunb. Jap.* 214. *Willd. sp.* 2. 1077. *Pers. syn.* 2. 50. *Ait. kew. ed.* 2. 3. 265. *Bot. mag. t.* 1059. *Smith in Rees in loc. Lindley in Ker's Reg. t.* 425.

R. flava *Donn. Cant. ed.* 4. 121.

R. florida *Poir. enc. suppl. in loc.*

R. diffusa *Roxb. fl. ind. ined?*

Hab. in Japonia (Thunb.); China *Staunton (v. v. c. & s. sp. herb. Linn. et Lambert.)*

Twelve or fifteen feet high. *Branches* flagelliform, naked, flexuose; *prickles* in pairs under the stipulæ, hooked. *Stipulæ* linear, adherent, toothed, downy beneath; *petioles* very villous; *leaflets* 5-7, approximated, rugose, lanceolate, obtuse, crenate, very dull, hairy on both sides. *Flowers* of a beautiful pink, numerous, small, clustered, always double; *bracteæ* linear, toothed, quickly deciduous, downy, as are the *pedicels*, turbinate *tube of the calyx*, and entire, ovate *sepals*. *Styles* downy, 18-25, united in a column, longer than the inner petals. *Fruit* turbinate, bright red, not crowned by the calyx, smooth, as are the peduncles.

This is known in the gardens only with flowers in a double state, which then bear so much resemblance to those of some species of Rubus, that it is commonly known by the name of the Bramble-flowered China Rose. Its fruit has never before been described. For an opportunity of examining it I am obliged to Mr. Lambert, in whose possession is a specimen brought from China by Sir George Staunton, of what is certainly this plant, without the pubescence of peduncles

and calyx; which is therefore deciduous. It is so unlike any other plant of the same division, that I know not with which it can be confounded except with the next species, from which it, however, differs very essentially.

R. Grevillii, known also under the name of *R. Roxburghii*, is a weak variety.

67. ROSA Brunonii. Tab. 14.

R. ramulis foliolis lanceolatis calycibusq. tomentosis glandulosis, stipulis integris.

Nomine celeberrimi doctissimique Roberti Brown, *Australasiæ indagatoris indefessi, Botanicorum principis, qui solus inter hodiernos Rosarum species proposuit novas omnesque rectè, insignita.*

Hab. in Nepalia *Wallich, Buchanan. (v. s. sp. herb. Banks et Lambert.)*

Shrub with the appearance of *R. moschata*. Old *branches* sparingly hairy, stout, armed with scattered, short, strong, hooked prickles; younger ones downy and glandular—their prickles falcate. *Stipulæ* linear, adherent, subulate and spreading at the end, beneath glandular; as are the *petioles*, which are hairy and beset with a few falcate prickles; *leaflets* 5-7, lanceolate, flat, simply serrate, hairy all over, dull green above, paler beneath and glandular; *serratures* much converging. Flowers in bunches; *bracteæ* straight, lanceolate, hairy, rolled inwards at the edge, glandular at the back; *peduncles* villous, brownish, covered with setæ and glands which are more densely placed on the oblong villous *tube of the calyx*, but more sparingly on the reflexed *sepals;* these last seem longer than the

petals, and are nearly simple; *petals* white? *stamens* and *styles* like those of *moschata*.

This highly interesting addition to the division of Roses with united styles is a native of Nepal, whence it has been sent by Dr. Wallich. It was also found in the same country by Dr. Buchanan, who communicated specimens to Mr. Lambert. I am unable to refer it to any species in Roxburgh's unpublished Flora Indica, unless it be his *R. pubescens*, a drawing of which I have had an opportunity of seeing. In this, all the most important characters of *R. Brunonii* are omitted, nor are they noticed in Roxburgh's description. At any rate, if they should prove the same, so indifferent a name as *pubescens* will of course give way to that I have proposed.

From *moschata* it differs in having hairy and glandular leaves, branchlets, and calyx; the leaflets also have an entirely different outline.

68. ROSA moschata.

R. ramulis nudiusculis, foliolis ellipticis acuminatis subtus glaucis serraturis conniventibus, stipulis integris, sepalis compositis acuminatis.

R. moschata minor, &c. *Bauh. hist.* 2. 45 & 47.

R. muscate *Regn. Bot. c. ic.*

R. moschata *Mill. dict. n.* 13. *Du Roi harbk.* 2. 365. *Quer. fl. Esp.* 6. 205. *Jacq. Schönbr.* 3. *t.* 280. *Willd. sp.* 2. 1074. *Desf. atl.* 1. 400. *Lawr. ros. tt.* 53. 64. *Pers. syn.* 2. 49. *Gm. bad. als.* 2. 429. *Jacq. fragm.* 31. *t.* 34. *f.* 3. *Ait! kew. ed.* 2. 3. 264. *D. C. cat. hort. monsp.* 138. *Smith! in Rees in loc. Redout. ros.* 1. 33. *t.* 5: 99. *t.* 35.

R. opsostemma *Ehr! beitr.* 2. 72.

R. glandulifera *Roxb! fl. ind. ined.*

β *nudiuscula*, foliolis oblongis acutis impubibus, petiolis pedicellis calycibusque glandulosis.

Hab. in agro Tunetano? ubi colitur (Desf.); Hispaniâ calidiore, (Quer.), *Alströmer;* Madera, *Staunton*, (Shuter). *(v. v. cult. et s. sp. herb. Smith, Lambert.)*

Erect, much branched. *Branches* very sparingly glandular, armed with nearly equal, strong, hooked, scattered prickles. *Stipulæ* linear, adherent, awl-shaped at the end, fringed with glands, hairy beneath; *petioles* hairy, prickly, and glandular; *leaflets* ovate-lanceolate, unpolished, simply and finely toothed, naked above, glaucous beneath with a hairy midrib. *Cymes* very numerous, about 7-flowered, corymbose with downy ramifications; *bracteæ* very deciduous, convex, reflexed, hairy and glandular; *pedicels* somewhat glandular, downy like the ovate tube, and reflexed *sepals;* these last elongated, slightly compound, falling off soon after the petals; *petals* pure white with a slight scent of musk, nearly entire, spreading and somewhat convex; *stamens* 80-85, very quickly deciduous; *disk* coloured, thickened and nearly flat; *ovaria* 20; *styles* hairy, united in a long slender column. *Fruit* small, red.

This is one of the few species found in the North of Africa, extending across the continent from Egypt to Mogadore and thence to Madeira, whence it was brought by Sir George Staunton, and by him communicated to Mr. Lambert. On the authority of Quer, it is found wild in the temperate and warm provinces of Spain; and in the Linnæan herbarium is a Spanish specimen from Alströmer. But there is no ground for M. Thory's assertion, that it is a native of Hindostan. Roxburgh, who describes it under the name of *glandulifera* in his MSS. was uncertain how it found its way into the Botanic garden at Calcutta; but guessed it might have been introduced from China.

It is very generally cultivated on account of the fine musky perfume of its flowers; whence its name. Our winters, however, are usually too rigorous for it. It exhibits, apparently, the most compound inflorescence of the genus; but I am disposed to consider the mass of flowers it produces to be formed by the aggregation of a great number of leafless floriferous branchlets, each of which considered separately would not be found in a state of greater composition than is usual; rather than similar to cymes of Roses in general. The order of expansion confirms my opinion.

Besides their dissimilarity in habit, it differs from *sempervirens* nearly in the same way that *abyssinica* does. And it is not the least remarkable part of these the only Roses strictly natives of Africa alone, that they should both have down on their branchlets, ramifications of inflorescence, and young fruit, which is a character otherwise peculiar to certain Asiatic species only.

69. ROSA rubifolia.

R. ramulis impubibus, foliolis ovato-lanceolatis serraturis divaricatis, stipulis integris, sepalis ovatis, fructibus pisiformibus.

R. rubifolia *Brown! in Ait. kew. ed. alt.* 3. 260. *Pursh am. septr.* 1. *n.* 9. *Smith in Rees in l.*

β fenestralis, foliolis utrinque impubibus, floribus subsolitariis. Tab. XV.

R. fenestrata *Donn! cant. ed.* 8. 170.

Hab. in America septentrionali, *Masson (v. v. c. hort. Sabine et s. sp. herb. Banks.)*

A shrub three or four feet high. *Rootshoots* ascending, straight; *branches* bright green, without down,

sparingly armed with scattered falcate prickles. *Leaves* distant; *stipules* very long, narrow, naked, fringed with glands; *petiole* naked, sparingly prickly; *leaflets* about 5, ovate, acute, simply serrated, serratures diverging; bright green, naked and somewhat shining above, very much paler and downy beneath. *Flowers* small, pale red, about three together; *peduncle* and *calyx* without pubescence; the former glandular: *sepals* simple, ovate, hairy, reflexed, deciduous; *stamens* deciduous; *styles* united into a downy, clavate column. *Fruit* about the size of a pea, quite round and naked.

This has hitherto been considered a very obscure plant, depending almost entirely upon the authority of the *Hortus Kewensis*, in the last edition of which it was described by Mr. Brown from plants raised from heps sent by Masson from North America. It is a very distinct species, having little affinity with any other than *R. moschata*. From this its naked branchlets, peduncle and calyx will immediately distinguish it without recurring to other characters. Its habit is the same, but size less. The flowers, too, are pale red and very small; quite unlike those of *moschata*.

The variety *fenestralis* differs from the true *rubifolia* in the total absence of pubescence on the leaves, in their paler colour and thinner texture. My figure was taken from an unusually weak specimen and does not present the most common appearance of the plant. The flowers grow generally three or four together.

Div. XI. *Banksianæ.* Stipulæ subliberæ, subulatæ v. angustissimæ, sæpius deciduæ. Foliola sæpius ternata, nitida. Caules scandentes.

The species of this division are remarkable for their long, graceful, often climbing shoots, drooping white flowers, and ternate shining leaves. Their distinguishing mark is the deciduous, subulate, or very narrow stipulæ. Their fruit is very various. *R. hystrix* has setigerous branchlets, and *R. setigera* has united styles.

70. ROSA lævigata.

R. stipulis lineari-lanceolatis semi-adnatis, petiolis inermibus, fructibus muricatis.

R. lævigata *Mich. bor. am.* 1. 295. *Pers. syn.* 2. 49. *Pursh am. sept.* 1. *n.* 10. *Smith in Rees in l.*

Hab. in Georgiæ sylvis umbrosis (Pursh), *Fraser. (v. s. sp. herb. Sabine.)*

Stem climbing (Pursh). *Prickles* scattered, falcate; *stipules* very narrow, united to the petiole by a small part of their lower half, apparently not deciduous, fringed with glands; *petioles* naked; *leaflets* 3, ovate-lanceolate, when old coriaceous, shining, simply serrated, entirely free from pubescence. *Flowers* solitary, large, white; *peduncle* and *tube of the calyx* covered all over with dense, weak, unequal bristles; *sepals* spreading, ovate with a point, entire, dilated at the end, with a few bristles at their back; *petals* longer than the last, nearly entire. *Stamens* numerous; mass of *stigmas* very large and woolly; *disk* thickened. *Fruit* oblong, red, muricate with stiff prickles and crowned by the indurated sepals.

Native of woods in Georgia, where it is said to climb to the top of the tallest trees. Its resemblance to the next species is very great, and has occasioned in one instance the Chinese plant to be mistaken for the American, and thence to be called *Cherokeensis*. They may, however, be distinguished by the following characters. *R. lævigata* has a climbing stem, persistent, half-adherent stipules, naked petioles and ribs to the leaves; *R. sinica* has a rambling stem, deciduous subulate stipules, very prickly petioles and ribs. Their fruit is so similar as not to be distinguished.

The only specimen I have seen was liberally communicated by Mr. Sabine.

71. ROSA sinica. Tab. 16.

R. stipulis setaceis deciduis, petiolis costaque aculeatis, fructibus muricatis.

R. alba cheusanensis foliorum margine et rachi mediâ spinosis. *Pluk. amalth.* 185.

R. sinica *Ait! kew. ed. alt.* 3. 261.

R. trifoliata *Bosc. dict.* fide *Poir.*

R. ternata *Poir. in enc. bot.* 6. 284.

R. cherokeensis *Donn! cant. ed.* 8. 170.

R. nivea *D. C. hort. monsp.* 137.

Hab. in China, *Bladh. (v. v. c. et s. sp. herb. Banks.)*

Branches rambling, armed with scattered, red, equal, falcate prickles. *Leaves* very shining; *stipules* setaceous, deciduous, fringed with glands; *petioles* not downy, armed with very numerous little prickles; *leaflets* ternate, ovate-lanceolate, finely serrated, very green above, paler beneath with a prickly rib. *Flowers* white, solitary; *sepals* rigid, entire; *fruit* orange red, muricate, crowned with the spreading, rigid sepals.

This is a species not uncommonly cultivated in gardens, where, however, it has never produced its flowers. At Montpellier it blossomed and was taken for a new species by M. Decandolle and published in his catalogue under the name of *R. nivea*. There, however, can be no doubt that this is what was intended in the *Hortus Kewensis* for *R. sinica*, which name I have therefore retained. It may be necessary to observe, that Linnæus had another plant in view for *R. sinica*, which is noticed in my remarks upon *R. indica*.

I have already pointed out the differences between this and *R. lævigata* under the latter species. Their heps are so similar that I have never been able to distinguish them. Fruit of *R. sinica*, gathered near Macao, where it is common, I have received from Mr. Sabine, and of *R. lævigata* from Mr. Fraser.

The tab. 16 is copied from a Chinese drawing in the possession of the Right Honourable Sir Joseph Banks.

72. ROSA recurva.

R. stipulis subulatis, foliolis 5-9, petiolis aculeatis, fructibus muricatis.

R. recurva *Roxb. fl. ind. ined.*

Hab. in Nepalia, (Buchanan). *Roxb. MSS.*

Subscandent, well armed with strong, recurved prickles. Leaflets 5-9, ovato-lanceolate, acutely serrated, smooth. Stipules subulate. Petioles armed.

This stout, straggling, recurved, powerfully armed shrub was brought by Dr. Buchanan from Nepal to the Botanic garden, Calcutta, where it has been ten years without flowering. *Roxb. MSS.*

The above account of Dr. Roxburgh is the only authority for the present species. From the little that is said of it I should almost doubt its being different from *R. sinica*, but I have met with no instance of that species producing more leaflets than three; this is said to have from 5 to 9. It should also seem to be more robust.

73. ROSA setigera.

R. sepalis pinnatifido-setigeris, stylis coalitis, fructibus muricatis.

R. setigera *Mich. bor. am.* 1. 295. *Pers. syn.* 2. 48. *Pursh am. septr.* 1. *n.* 7. *Smith in Rees in l.*

Hab. in America septentrionali, (Michaux).

Stem erect, smooth, armed beneath the stipulæ with 1-3 short, recurved prickles. *Stipules* subulate; *petiole* rough with setæ and little recurved prickles; *leaflets* 3-(rarely)-5, oval, usually with a point, acutely serrated, smooth. *Flowers* numerous, or sometimes solitary, rose-coloured; *stalks* long, rough with setæ; *tube of the calyx* round, rough; *sepals* with a very narrow, sharp point, somewhat pinnatifidly setigerous, downy and glandular: *petals* broad, obcordate; *styles* twice as long as the tube of the calyx, twisted together into a smooth column. *Fruit* globose, rough. *Ach. Richard's MSS.*

For the foregoing account of this very little known species, I am much indebted to M. Achille Richard, who has taken the trouble to examine the herbarium of Michaux for the purpose. Its united styles distinguish it from the rest of this division.

74. ROSA hystrix. Tab. 17.

R. armis ramulorum confertis: majoribus falcatis, foliolis ovatis, fructibus hispido-muricatis.

Hab. in Chinæ provincia Kiangsi, *Staunton;* Japonia, *herb. Lamb. (v. s. sp. herb. Banks et Lamb.)*

Branches green, flagelliform, armed with numerous, very small and stiff, unequal, straight prickles, a few large, falcate ones being scattered among them; the scars only of the small ones remain on the old stems. *Leaves* distant; *stipules* very narrow, united halfway, their disengaged part deciduous and leaving a considerable scar; *petioles* without down, with a few falcate prickles; *leaflets* 3 together, ovate, flat, shining, simply serrated, pedicellated, dark green above, pale beneath with a prickly rib. *Bracteæ* none; *peduncle* and oblong purple *fruit* bristly with dense, needleshaped, stiff prickles and setæ; *sepals* persistent, rigid, converging, ovate, pointed, nearly entire, with a few stiff slender prickles, some of which are marginal; *disk* flat, fleshy; *styles* hairy, included. *Flowers* large.

Of this very rare species I have only been fortunate enough to examine two specimens; one with fruit, from which the figure is taken, in the herbarium of Sir Joseph Banks; and the other in flower, but in a very imperfect state, in the possession of Mr. Lambert, who obtained it, with a considerable number of other Japan plants, from a Dutch prize taken in the course of the last war. Its branches are covered with little, short, stiff setæ and a few larger falcate prickles mixed among them. From the ticket of Mr. Lambert's specimen it appears that the collector took it for the *R. canina* of Thunberg.

75. ROSA microcarpa. Tab. 18.

R. floribus corymbosis, fructibus pisiformibus inermibus.

R. cheusan glabra, juniperi fructu *Pet. gaz.* 57. *t.* 35. *f.* 11.

Hab. in Chinæ Provincia Canton, *Staunton (v. s. sp. herb. Banks & pict. in icon. Sinens.)*

Branches flagelliform, slender, defended by a few small, scattered, deciduous, hooked prickles, when young a little downy. *Leaves* distant, deciduous; *stipules* subulate, quickly falling off; *petioles* downy or naked; *leaflets* 3 or 5, oblong, or ovato-lanceolate, naked, simply crenato-serrate, above shining, dark green, beneath paler. *Flowers* very numerous, small, white; *bracteæ* deciduous; *stalks* smooth; *fruit* scarlet, the size and form of that of *Cratægus oxyacantha*; *styles* 15, hairy, very little exserted; *disk* flat; *sepals* deciduous; *pericarps* 2-3 roundish, naked, very shining.

There can be no stronger evidence of the very imperfect knowledge of Linnæus in Asiatic Roses than his citing this, which is very well figured in Petiver, to so dissimilar a plant as *R. indica*. This error has been continued by Willdenow, who probably, on that account, considered Linnæus's *R. indica* to be something with which he was unacqaainted.

It has a near affinity to *R. Banksiæ*, from which its prickly stem, in a young state slightly downy, and differently shaped leaflets, sufficiently distinguish it.

76. ROSA Banksiæ.

R. ramis et fructibus inermibus.

R. Banksiæ *Brown! in Ait. kew. ed. alt.* 3. 258. *Smith! in Rees in l. Curt. mag. t.* 1954. *Lindley in Ker's reg. t.* 397. *Redout. ros.* ——

R. Banksiana *Abel chin.* 160?

R. inermis *Roxb. MSS?*

Hab. in China, Ker. *(v. v. c.)*

Branches unarmed, weak, climbing, dull green. *Stipules* subulate, quickly deciduous, somewhat hairy; *petioles* naked, rarely hairy; *leaflets* 1-5, flat, oblong-lanceolate, obtuse, often waved, simply serrated, entirely free from pubescence except at the base of the middle nerve, where they are very hairy. *Flowers* nodding, numerous, small, white and very double, with a weak but very pleasant scent; *bracteæ* minute, quickly deciduous; *peduncles* naked, very slender, a little thickened upwards; *tube of the calyx* hemispherical; *sepals* ovate, pointed, entire; *styles* distinct, little exserted. *Fruit* unknown.

This is the most elegant of the genus, growing with great luxuriance in the open air, and producing its charming blossoms in the utmost profusion. Mr. Brown first noticed it in the last edition of the *Hortus Kewensis*, and honoured it with the name of Lady Banks. An excellent figure of it is published in the Botanical Register.

R. inermis of Roxburgh's unpublished *Flora Indica* is probably this species; and if so, a variety of it called Wong-mouc-heuong, with double yellow flowers, is cultivated in the Botanic Garden, Calcutta.

* SPECIES INCERTÆ SEDIS.

77. Rosa pseud-indica.

Hab. in China *(v. ic. pict. bibl. Lambert.)*

Habit of *R. indica*. *Prickles* nearly equal. *Stipules* very hairy. *Peduncle* without bracteæ, covered with little short prickles. *Tube of the calyx* and *sepals* very hairy? *Flowers* double, deep yellow. *Leaves* more finely serrated and coriaceous than of *R. indica*.

---

78. Rosa xanthina.

Hab. in China *(v. ic. pict. Bibl. Lambert.)*

A Rose with all the appearance of *R. spinosissima* except having no setæ and double flowers the colour of *R. sulphurea*.

** SPECIES DUBIÆ, QUIBUSDAM PRIORUM FORTÈ REFERENDÆ.

79. R. agrestis *Gmel. bad. als.* 2. 416.

R. germinibus subglobosis pedunculisque hispidulis, foliolis rotundis obtusis, æqualiter dentatis subtus venosis albido-tomentosis, caule aculeolis raris rectis, floribus solitariis. *Gmel.*

Hab. in agris argillaceo-lutosis calcareis apricis inter segetes nec alibi (Gmel.)

Shrub a foot or foot and half high, erect. *Branches* slender, smooth, green, unarmed at the base, upwards covered with a few, little, straight, unequal prickles. *Leaflets* sessile, round, obtuse, equally toothed, smooth and deep green above, veiny and white with down beneath. *Petioles* nearly smooth. *Stipules* narrow lanceolate, acute, smooth, entire. *Flowers* solitary, large, white. *Tube of the calyx* roundish, rough. *Sepals* compound, hispid, white at the edge with down, shorter than the petals. *Fruit* roundish, smooth, red, fuscous. *Gmelin.*

Perhaps allied to *R. tomentosa.*

---

80. R. hispanica *Mill. dict. n.* 7.

R. foliis utrinque villosis, calycis foliolis acutè serratis, fructu glabro. *Mill.*

Hab. in Hispania.

Stem four feet high. Prickles strong. Flowers bright red, appearing in May. *Mill.*

81. R. gemella. *Willd. enum.* 544.

R. germinibus depresso-globosis pedunculisque glabris, floribus subgeminatis, foliis oblongis acutis, petiolis venisque subtus pubescentibus, aculeis caulinis geminatis. *Willd. l. c.*

Hab. in America boreali.

Aculei breves uncinati geminati infra axillares, non stipulares. Petala rubra. Media inter *R. lucidam* et *carolinam*, sed folia nullo modo nitida. *Willd.*

This is adopted by Pursh without addition or any further remark, than that it is a low shrub with a large flower, growing on dry sunny hills from New England to Carolina.

R. gemella may be a distinct species, but by the preceding account can be distinguished from *R. carolina* only by the smooth fruit.

The native country of the Linnæan specimens described by Sir James Smith in *Rees's Cyclopædia* is unknown. They are very incomplete; but as far as any opinion can be formed of them, are European and probably of *R. cinnamomea*, the leaflets being only a little broader than usual. Certainly they answer in no way to Willdenow's description, "Media inter *lucidam* et *carolinam*."

---

82. R. Lyonii *Pursh am. septr.* 1. 345.

R. germinibus subglobosis glabriusculis, pedunculis hispidis, petiolis subaculeatis, caule glabro, aculeis sparsis rectis, foliolis (3-5) ovato-oblongis acutis serratis, suprà glabriusculis, subtus tomentosis, superioribus simplicibus, floribus subternatis, stipulis linearibus, calycis laciniis tomentosis linearibus vix laciniatis. *Pursh l. c.*

Hab. in Tenassee, *Lyon.* Flowers pale red; leaves small, with coloured veins. *Pursh.*

Described by Pursh from specimens in Lyons's herbarium.

This is another plant evidently very like *R. carolina*, although perhaps sufficiently distinct on account of the scattered prickles. But when Pursh saw Mr. Sabine's Roses at N. Mimms, he pointed out a plant growing there as his *R. Lyonii*. This I unfortunately have not seen with leaves on; but in its leafless state it differs in no respect from *R. carolina* except in having smooth fruit and some of the prickles falcate.

---

83. R. polliniana *Spreng. plant. min. cogn. pug.* 2. *pag.* 66.

R. calycum tubis ovatis, pedunculisq. hispido-glandulosis; petiolis aculeato-glandulosis; foliolis ovato-subrotundis utrinque glabris serratis; dentibus glanduloso-serrulatis, trunco aculeato. *Pollin. plant. veron.* 13 ex Poir.

This species is related to *R. sempervirens*, which has white flowers; leaves simply serrated; petioles smooth; the divisions of the calyx entire. The present plant has a stem 4 to 6 feet high, covered with hooked prickles; the branches hispid, reddish, panicled, with three flowers or more; petioles very bristly and glandular; leaflets 5-3, roundish oval, somewhat obtuse, green, shining above, paler beneath; the denticulations glandular and toothed; stipules ciliated, glandular; bracteæ amplexicaul, reddish, lanceolate, pointed, glandular beneath, two often opposite with a third larger and lower down; peduncles reddish, hispid, glandular; divisions of the calyx pinnatifid; the flowers large, purple; petals oval, rounded, slightly scented; tube oval, hispid; styles distinct, twice as short as the stamens; fruit oval, globular. Grows in hedges at the foot of Mount Baldo. *Pollin.* ex Poiret.

A mere variety of *rubiginosa?* Pollin probably means to compare it with the *R. sempervirens* of some German botanists, not of Linnæus.

84. R. hispida *Poir. enc. bot. n.* 15.

R. germinibus globosis pedunculisque hispido-aculeatis; foliolis ovatis, subtùs albido-tomentosis; caule aculeis sparsis, floribus solitariis. *Poir. l. c.*

To this M. Poiret cites R. pomo spinoso, folio hirsuto *J. Bauh. hist.* 2. 38. with a mark of doubt. This figure seems to be *R. villosa*, and so I should have guessed *R. hispida* to be also; but it is described with leaves smooth above, which has never been noticed in *villosa:* possibly it may be some variety of *tomentosa;* but in that case Bauhin's synonym is wrong quoted.

---

85. R. evratina *Bosc. dict.*

R. germinibus ovatis hispidissimis; ramis petiolisque subinermibus; foliolis quinatis ternatisve; pedunculis hispidis, fasciculato-subumbellatis, terminalibus. *Poir. enc. suppl.* 714.

Hab. in Carolina (Poir.)

This species is related to *multiflora* and yet more to *alba* in the form of its leaves. Its *stems* and *branches* are smooth, usually unarmed, as are the *petioles;* the *leaves* are composed of 5 and sometimes 3 *leaflets*, which are largish, oval, obtuse, nearly equally toothed, green above, paler and somewhat glaucous beneath; *stipules* entire with two sharp teeth. The *flowers* are usually terminal, in bunches, almost umbellate; *peduncles* straight, one-flowered, very bristly and glandular, as is the oval *tube of the calyx*, and its *limb* at the base; its *divisions* are oval, entire, acute, with a very long point; the *flower* somewhat large, of a pale red.

This plant grows in Carolina and is cultivated in most gardens of Europe. *Poiret.*

If this had not been compared with *multiflora* and *alba* I should have taken it for some partially unarmed variety of *R. carolina*, which varies prodigiously in size and form of leaves, prickles and pubescence.

86. R. Redutea glauca *Thory in Red. Roses. tom.* 1. *t.* 38. *p.* 101.

This, as M. Thory observes, looks like an hybrid production between *R. rubrifolia* and *spinosissima*, having the colour of the former with something of the habit of the latter. Yet the two remarkable varieties of *systyla* and *arvensis* which I have described, incline me to refer this to *rubrifolia;* from which in reality it does not differ, except in being less and having a few setæ. The aculei at the base of the shoot in the figure are very similar to those of *rubrifolia.*

M. Thory has two varieties of this. With β I am not acquainted. The variety γ is *R. nitida!!;* with which the α has not two characters in common.

---

87. R. clynophylla. *Thory in Red. ros.* 1. 43. *t.* 10.

Stem shrubby, silky with hairs. *Branches* slender, hairy. *Prickles* stipulary, two together. *Leaves* hanging down; *leaflets* oblong elliptical doubly serrated, shining above, hairy beneath; *petioles* glandular, hairy, somewhat prickly; *stipules* narrow, fringed, pointed. *Flowers* solitary. *Peduncles* very short, hairy. *Tube of the calyx* roundish, hairy, sometimes underset with floral leaves. *Sepals* undivided, pointed, silky. *Petals* white, somewhat cordate, yellowish at the base. *Fruit* roundish. *Thory l. c.*

Of this I can only judge from Redouté's figure and Thory's description. That it belongs to my *Bracteatæ* there is no doubt, and I should have added that it is the same as *involucrata* if I had not Mr. Sabine's authority for their being very different. I can perceive nothing in the figure in which they disagree, except in the absence of bracteæ in *clynophylla*, which, as they are not noticed in the description, I conclude really not to be present.

88. R. triphylla *Roxb. fl. ind. ined.*

Scandent, armed. Leaves ternate, leaflets lanceolate.

Brought from China to the Botanic Garden, Calcutta, where it thrives luxuriantly. It is an extensive rambler, and is known to the Chinese labourers in the Garden under the name of *Tshate-boy-fa.*

No figure of this species has been sent home by Roxburgh. It may be *R. microcarpa;* at least I know no other Chinese species to which the above account can be applied.

---

89. R. cinnamomea *Lour. Coch.* 323.

Hoa Kóê *Cochinchinens.*

Mûi hōa *Sinens.*

Hab. ubique culta in Cochinchina et China. (Lour.)

Stem shrubby, tufted, 3 feet high, branched, prickly; petioles prickly. Flowers very red, single. Tube of the calyx round; stalks unarmed; scent scarcely any. *Loureiro.*

---

90. R. spinosissima *Lour. Coch.* 323.

Hoa hoùng taù *Cochinchinens.*

Hab. ubique in Cochinchina (Lour.)

Stem shrubby, 6 feet high, somewhat climbing, very prickly. Flower blush-coloured, scentless. Tube of the calyx roundish, smooth. Petioles and peduncles prickly. Perhaps *R. sinica. Loureiro.*

It is very evident from the above description of Loureiro that his plant is not what it calls itself; nor is there any Chinese species to which it is referable.

91. R. adenophylla *Willd. enum.* 546.

R. germinibus ovatis calycibus pedunculisque glanduloso-hispidis, petiolis glanduloso-pubescentibus inermibus, foliolis simpliciter serratis subtus glaucis, margine glandulosis, aculeis ramorum sparsis. *Willd. l. c.*

Hab.....

Flos magnus ruber, petalis emarginatis. Hæc flore simplici est. A duabus præcedentibus *(turbinata* et *pulchella)* figura germinis, foliis rigidioribus minute simpliciter serratis, diversa. *Willd.*

Perhaps something allied to *R. parvifolia,* if distinct from it; but that species has never been heard of in a single state.

---

92. R. tuguriorum *Willd. enum.* 544.

R. germinibus subrotundis glabris, calycibus pilosis, pedunculis hispidis, petiolis villosis aculeatis, caule aculeis sparsis. *Willd. l. c.*

Hab.....

Species ad extruendum casas v. tuguria aptissima. In vernacula lingua *Tapeten Rose* audit. *Willd.*

I should have guessed this to be *R. arvensis,* but nothing is said of its styles, and Willdenow would scarcely describe the same species twice over.

93. R. pulchella *Willd. enum.* 545.

R. germinibus subrotundo-obovatis pedunculis calycibusque glanduloso-hispidis, petiolis glanduloso-pubescentibus inermibus, aculeis caulinis sparsis. *Willd. l. c.*

Hab. . . . .

Affinis præcedenti, *(R. turbinatæ)*, sed caulis triplò minor, flores parvi, germinis forma diversa, petioli non aculeati, et foliola subrotunda, quæ in præcedente subrotundo-ovata. *Willd.*

Is this the Rose de Meaux of the gardens? or some variety of *gallica?*

---

94. R. velutina *Clairv. man. d'herbor.* 163.

Fruit round, leaves cottony beneath, edges glandular. *Cl.*

Hab. in Helvetia circa Bruel, Winthertour.

Perhaps *R. myriacantha D. C.* Clairv. But this cannot be, because that species has leaves smooth on both sides.

---

95. R. glandulosa *Decand. suppl.* 539.

This elegant species of Rose forms a dense shrub 7 or 8 feet high; the prickles are few, straight, and tolerably slender; those of the petioles are small and hooked, intermixed with glandular hairs; leaflets 5-7, perfectly smooth, somewhat glaucous, oval, obtuse, small, doubly serrated with glandular teeth; altogether like those of Burnet; flowers solitary, of a bright rose; stalks and tube of the calyx covered with long spiniform and glandular hairs; stipules fringed with glands; calyx with an oval tube, its segments almost always

entire, a little glandular beneath. This fine Rose grows in hedges and thickets in the neighbourhood of Briançon, especially below the town and along the valley leading to Lantaret. It flowers in July. *Decand. l. c.*

Is this distinct from *rubiginosa?* or is it a variety of *tomentosa* with smooth leaves?

---

96. R. arborea *Pers. syn.* 2. 50.

R. caule arboreo, foliis pinnatis, foliolis ovatis.

Hab. in Persia, Olivier.

Plantulas juveniles e seminibus apportatis tantummodo vidi. *Pers. l. c.*

---

97. R. farinosa *Rau enum.* 147.

R. calycis tubo oviformi pedunculisque superne glabris; foliolis ovalibus utrinque villosis mollissimis, duplicato-serratis; petiolis tomentosis cauleque aculeatis: aculeis rectiusculis *Rau l. c.*

R. farinosa *Bechst. forstb. p.* 243. *n.* 159 *et p.* 1646.

Hab. circa Wirceburgum, Rau.

Three or four feet high. *Prickles* strong, straight. Young branches armed with slender, straightish, somewhat deflexed prickles; towards the extremities unarmed. *Petioles* hoary and glandular. *Leaflets* on both sides hoary and soft, above shining like silk, beneath glandular at the midrib. *Peduncles* 1-3, naked upwards, downy at the base. *Sepals* compound without glands. *Flowers* pale red. *Fruit* turgid, dull red. *Rau l. c.*

Can this be a good species? Or is it not rather a stunted *R. tomentosa?* or perhaps the same as our hoary Sussex variety of *R. Sabini* β?

98. R. sempervirens *Rau enum.* 120.

Probably a variety of *R. rubiginosa* with prostrate shoots, naked leaves and stipulæ. It is astonishing that so well-known a plant as *R. sempervirens* with evergreen, shining leaves, united styles and white flowers, should be confounded with a plant having deciduous leaves, disunited styles and red flowers.

---

99. R. trachyphylla *Rau enum.* 124.

Undoubtedly referable to some variety of *R. rubiginosa*, differing, however, in having unusually compound serratures to the leaves, and prickles infrastipulary. It can scarcely be *R. sepium*, as its leaflets are said to be rounded at the base.

---

100. R. Orbessanea *Redout. ros.* 2. 21. *c. fig.*

Appears to be some garden production and possibly a variety of *R. gallica;* with which it agrees in sepals, habit, and in some measure in prickles; but differs in shape of fruit. *R. turbinata* has the same sort of fruit, but disagrees with this in so many respects that they can scarcely be considered the same species.

---

101. R. fraxinea *Willd. enum. suppl.* 37.

R. germinibus ellipticis glabris pedunculis glanduloso-hispidis petiolis sub-aculeatis glanduloso-hispidis, foliis glabris, caule aculeis sparsis *Willd. l. c.*

Petala obcordata saturate rubra.

*** SPECIES NOMINE TANTUM NOTÆ.

R. macrocarpa *Maur. cat.* 15.
R. mutabilis *Maur. cat.* 15.
R. lutetiana *Leman in journ. phys. vol.* 87.
R. urbica *ibid.*
R. rustica *ibid.*
R. tomentella *ibid.*
R. pubescens *ibid.*
R. hystrix *ibid.*
R. nemoralis *ibid.*
R. subvillosa *ibid.*
R. cymbifolia *ibid.*
R. foliosa *ibid.*
R. ambigua *ibid.*
R. poterium *ibid.*
R. celsii *ibid.*
R. eriocarpa *ibid.*
R. parvifolia *ibid.*
R. ancistrum *ibid.*
R. neglecta *ibid.*
R. balsamica *Willd. enum. suppl.* 38.
R. apiifolia *ibid.*
R. corallina *ibid.*
R. millesia *Linn. amœn. acad.* 4. 484.

ADDENDA.

p. 9. ROSA microphylla.

Since my remarks upon this species were printed, of which I had no other knowledge than was derived from a drawing made in the East Indies, Mr. Lambert has kindly communicated specimens received by him from Dr. Wallich. It proves, notwithstanding its apparent resemblance to *R. bracteata*, to be more nearly allied to *R. sericea*, to the vicinity of which it must be transferred.

---

p. 40. insert as synonym of R. rubella R. Candolleana *Red. ros.* 2. *p.* 45. *c. fig.*

---

p. 44. line 20. After *Bell* insert "*Pallas (v. s. sp. comm. cel. Lambert.)*"

---

p. 88. R. rubiginosa.

ι. parvifolia, pumila, ramis setigeris, foliolis subrotundis.

Hab. in vepretis Tauriæ montosæ, *Pallas. (v. s. sp. comm. cel. Lambert.)*

A curious stunted variety of *R. rubiginosa*, found by Pallas growing in the mountainous part of Tauria. Its branches are slightly setigerous and its leaves small and round, like those of *R. myriacantha*.

p. 105. 56-57. R. microphylla.

R. foliolis nitidis argutè serratis, calyce aculeis densissimis muricato, sepalis brevibus late ovatis apiculatis.

R. microphylla *Roxb. fl. ind. ined.*

Hoi-tong-hong *Sinensium.*

Hab. in China, *Roxb., Wallich. (v. s. sp. comm. cel. Lambert.)*

A little, compact, bright green plant. *Branches* naked, slender, somewhat flexuose; *prickles* under the stipules, straight? *Stipules* very narrow, spreading at the tip. *Petioles* somewhat prickly, very slender; *leaflets* 5-9, very small, shining, roundish ovate, pointed, quite free from pubescence, finely serrated. *Flowers* solitary, with a narrow pointed bractea, very double, pale red; *calyx* covered all over with very close set, straight prickles; *tube* round; *sepals* very short, dilated, pointed, downy at the edge (like those of *R. bracteata* in shape).

A charming little shrub resembling the Macartney Rose in general appearance; and particularly in the shape of the divisions of its calyx. It differs from all in this section in its very densely muricated calyx and narrow stipulæ. See p. 9.

INDEX SPECIERUM

ET

Synonymorum.

abyssinica *Brown* . p. 116
acicularis 44
aciphylla Rau . . . 99
adenophylla *Willd.* . . 139
affinis Rau 99
agrestis *Gm.* 133
agrestis Sav. . . . 88
alba *Linn.* 81
alpina *Linn.* 37
alpina Pall. 40
alpina lævis Red. . . 26
alpina pendulina Red. 37
alpina β Ait. . . . 26
altaïca Willd. . . . 51
ambigua Lem. . . . 143
ancistrum Lem. . . 143
andegavensis Bat. . . 98
apiifolia Lem. . . . 143
arborea *Pers.* . . . 141
aristata *Lapeyr.* . . 33
arvensis *Huds.* . . . 112
arvensis Schr. . . . 98
arvensis Linn. . . . 28
arvina Krock. . . . 69
atrovirens Viv. . . . 117
austriaca Cr. . . . 69

balearica Desf. . . . 117
balsamica Willd. . . 143
Banksiæ *Brown* . . 131
Banksiana Ab. . . . 131
belgica Mill. . . p. 62
belgica Brot. . . . 68
bengalensis Pers. . . 108
berberifolia *Pall.* . . 2
biflora Krock. . . . 37
bifera Poir. 62
biserrata Mer. . . . 88
blanda *Ait.* 25
blanda β Sol. . . . 25
blanda Brot. . . . 68
blanda Pursh . . . 13
Borreri Wds. . . . 88
bracteata *Wendl.* . . 10
bracteata Mönch . . 10
bractescens Wds. . . 99
brevistyla D. C. . . 111
Brunonii 120
burgundiaca Pers. . . 64
burgundiaca Röss. . 70

cæsia Sm. 100
calendarum Munch. . 62
campanulata Ehr. . . 73
candida Scop. . . . 112
Candolleana Thory . 145
canina *Linn.* . . . 98
canina Thunb. . . . 129
canina β Suter . . . 104
canina β D. C. . . . 88
capreolata Neill. . . 117
carolina *Linn.* . . . 23

carolina Du Roi . p. 20
carolina γ & δ *Ait.* . . 20
carolina ε *Ait.* . . . 18
carolina ζ *Ait.* . . . 42
caroliniana Mich. . . 20
caroliniana Big. . . 23
caryophyllea Poir. . . 64
caucasea 97
caucasica Pall. . . . 97
Celsii Lem. 143
centifolia Mill. . . . 68
centifolia Linn. . . 64
centifolia minor Röss . 64
centifolia ? *Redout.* . 65
cerea Röss. 84
chamærhodon Vill. . 50
cherokeensis Donn. . 126
chinensis Jacq. . . 108
chlorophylla Ehr. . . 84
cinnamomea *Linn.* . . 28
cinnamomea Roth. . 85
cinnamomea Lour. . . 138
cinnamomea Herm. . 50
cinnamomea γ. *Red.* . 104
clynophylla *Red.* . . 137
collina Jacq. . . . 99
collina Smith. . . . 111
collina Schr. . . . 51
collincola Ehr. . . . 34
corallina Willd. . . 143
corymbifera Gm. . . 99
corymbosa Bosc. . . 26
corymbosa Ehr. . . 23
Crantzii Schultes . . 87
cuprea Jacq. . . . 68
cuspidata *Bieb.* . . . 94
cymbifolia Lem. . . 143

damascena *Mill.* . . 62
davurica *Pall.* . . . 32
dibracteata D. C. . . 111
diffusa Roxb. . . . 119
diversifolia Vent. . . 108
divionensis Röss. . . 64
Doniana Woods. . . 59
dubia Wib. 77
dumalis Bechst. . . 98
dumetorum Thuill. p. 99
dumetorum Sm. . . 88
dunensis Dod. . . . 50

eglanteria rubra Röss. 87
eglanteria Mill. . . 86
eglanteria Linn. . . 84
eglanteria punicea Thory 85
enneaphylla Raf. . . 23
eriocarpa Lem. . . 143
evratina *Bosc.* . . . 136

fœcundissima Munch. 28
fœtida Herm. . . . 84
fœtida Bat. 77
fastigiata Bat. . . . 99
farinosa *Rau* . . . 141
fenestrata Donn. . . 123
ferox *Lawr.* . . . 3
flava Donn. . . . 119
flexuosa Rau . . . 88
florida Donn. . . . 23
florida Poir. . . . 119
fluvialis Fl. dan. . . 28
foliosa Lem. . . . 143
francofurtana Munch. 73
francfurtensis Röss. . 73
fraxinifolia *Bork.* . . 23
fraxinifolia Dum. . . 15
fraxinea *Willd.* . . . 142
fusca Mönch. . . . 112

gallica *Linn.* . . . 68
gallica hybrida Ser. . 113
gemella *Willd.* . . . 134
geminata Rau . . . 113
glandulifera Roxb. . 122
glandulosa Bell. . . 37
glandulosa *D. C.* . . 140
glauca Desf. . . . 104
glauca Lois. 98
glaucescens Wulf. . . 104
glaucescens Mer. . . 98
glaucophylla Winch . 99
glaucophylla Ehr. . . 46
glutinosa *Sm.* . . . 95
gracilis Wds. . . . 74

grandiflora . . . p. 53
grandiflora Wallr. . 88
Grevillii Hort. . . . 120

Halleri Kr. 112
helvetica Hall. f. . . 88
hemisphærica Herm. . 46
herporhodon Ehr. . . 112
heterophylla Wds. . . 77
hibernica *Sm.* . . . 82
hibernica Hook. . . 51
hispanica *Mill.* . . . 133
hispida *Poir.* . . . 136
hispida Munch. . . 68
hispida Sims . . . 47
hispida Krock. . . . 37
Hoi-tong-hong Sinens. 9
holosericea Röss. . . 68
hudsoniana Red. . . 23
humilis Marsh. . . 20
hybrida Vill. . . . 37
hybrida Schl. . . . 113
hystrix 129
hystrix Lem. . . . 143

indica *Linn.* 106
indica Burm. . . . 108
indica Red. . . 106, 108
indica Forsk. . . . 99
inermis Roxb. . . . 131
inermis Mill. . . . 37
inodora Agardh . . 88
involucrata Roxb. . . 8
involuta *Sm.* . . . 56
involuta Winch . . . 59

kamchatica *Vent.* . . 6
kamchatica Donn. . . 45
kamchatica Red. . . 3

lævigata *Mich.* . . . 125
lagenaria Vill. . . . 37
Lawranceana *Swt.* . 110
laxa 18
leucantha Lois. . . . 99
leucochroa Desv. . . 99
longifolia Willd. . p. 106
lucida *Ehr.* 17
lucida Lawr. . . . 10
lurida Andr. . . . 104
lutea *Mill.* 84
lutea Brot. 46
lutea bicolor Jacq. . . 85
lutea nigra Promv. . 21
lutescens *Pursh* . . . 47
lutetiana Lem. . . . 143
Lyellii 12
Lyonii *Pursh* . . . 134

Macartnea Dum. . . 10
macrocarpa Maur. cat. 143
macrocarpa Mer. . . 88
macrophylla 35
maialis *Retz.* . . . 34
maialis Herm. . . . 28
marginata *Wallr.* . . 58
micrantha Sm. . . . 87
microphylla Desf. . . 117
microphylla *Roxb.* 145, 146, 9
microcarpa 130
millesia Linn. . . . 143
mollis Sm. 77
mollissima Bork. . . 77
monspeliaca Gou. . . 37
montana Vill. . . . 113
montana D. C. . . . 88
Montezumæ *H. & B.* 96
moschata *Mill.* . . . 121
multiflora *Thunb.* . . 119
multiflora Reyn. . . 104
muscosa Mill. . . . 64
mutabilis Maur. cat. . 143
mutica Fl. dan. . . 34
myriacantha *D. C.* . . 65
myrtifolia Hall. f. . 88

nankinensis *Lour.* . . 54
neglecta Lem. . . . 143
nemoralis Lem. . . 143
nemorosa Lej. . . . 87
nitens Mer. 98
nitida *Willd.* . . . 13
nivalis Donn. . . . 56

nivea D. C. . . . p. 126
nuda Wds. 98

obtusifolia Desv. . . 99
odoratissima Sweet . 106
odoratissima Scop. . 87
olympica Donn. . . 69
opsostemma Ehr. . . 122
Orbessanea *Thory* . 142

palustris Marsh . . 23
palustris Buch. . . . 8
parviflora *Ehr.* . . . 20
parvifolia *Ehr.* . . . 70
parvifolia Lem. . . 143
parvifolia Pall. . . 55
pendula Roth. . . . 40
pendulina Linn. . . 42
pendulina Linn. herb. 37
pensylvanica Mich. . 23
pimpinellifolia Linn. . 50
pimpinellifolia Pall. . 51
pimpinellifolia Vill. . 37
pimpinellifolia Bieb. . 53
pimpinellifolia ♀ *Red.* 50
platyphylla Rau . . 99
Polliniana *Spreng.* . 135
polyanthos Röss. . . 64
polyphylla Willd. . . 40
pomifera Herm. . . 74
pomponia D. C. . . 64
Poterium Lem. . . . 143
prostrata *D. C.* . . . 118
provincialis Mill. . . 64
provincialis Bieb. . . 55
provincialis β *Sm.* . . 64
provincialis γ *Sm.* . . 65
pseud-indica . . . 132
pseudo-rubiginosa Lej. 87
psilophylla Rau . . 99
pubescens Lem. . . . 143
pulchella *Willd.* . . 140
pulchella Wds. . . . 77
pulverulenta *Bieb.* . . 93
pumila Linn. . . . 68
punicea Mill. . . . 85
pusilla Maur. cat. . . 110

pygmaea Bieb. . . p. 38
pyrenaica Gouan. . . 37
pyrenaica β *Sm.* . . 38

Ramanas Jap. . . . 5
rapa *Bosc.* 15
recurva *Roxb.* . . . 127
Redutea Thory . . . 137
Redutea rubescens Thor. 13
remensis Desf. . . . 70
repens Gm. 113
repens Munch. . . . 68
reversa *W. et K.* . . 57
Reynieri Hall. . . . 88
Roxburghii Hort. . . 120
rubella *Sm.* 40
rubicunda Hall. f. . 104
rubifolia *Brown* . . 123
rubiginosa *Linn.* . 145, 86
rubiginosa cretica Red. 95
rubra Lam. 68
rubra lucida Röss. . . 17
rubrifolia *Vill.* . . . 164
rubrispina Bosc. . . 13
rugosa *Thunb.* . . . 5
rupestris Crantz. . . 37
rustica Lem. 143

Sabini *Wds.* . . . 59
sanguisorbifolia Donn. 51
sarmentacea Woods. . 98
sativa Dodon. . . . 81
scabriuscula Sm. . . 77
scandens Mönch. . . 112
scandens Mill. . . . 117
scotica Mill. 51
semperflorens *Curt.* . 108
semperflorens carnea Röss. 106
semperflorens minima Sims 110
sempervirens *Linn.* . 117
sempervirens *Rau* . . 142
sempervirens Röss. . 113
sempervirens Roth . . 87
senticosa Ach. . . . 98
sepium Thuill. . . . 88
sepium Bork. . . . 99
sericea 105

serpens Ehr. . . p. 112
setigera *Mich.* . . . 128
shirazensis Kæmpf. . 61
simplicifolia Salisb. . 1
sinica *Ait.* 126
sinica Linn. 106
solstitialis Bess. . . 99
spinosissima *Linn.* . . 50
spinosissima *Lour.* . . 138
spinosissima Gort. . . 34
spinosissima Mönch. . 56
stipularis Mer. . . . 88
stricta *Muhl.* . . . 42
stylosa Desv. . . . 111
stylosa β Desv. . . . 99
suaveolens Pursh. . . 87
suavifolia Lightf. . . 87
suavis Willd. . . . 42
sulphurea *Ait.* . . . 46
subvillosa Lem. . . . 143
surculosa Woods . . 98
sylvatica Gat. . . . 68
sylvestris Herm. . . 112
systyla *Bat.* 111

taurica *Bieb.* . . . 31
teneriffensis Donn. . . 98
tenuiglandulosa Mer. . 87
ternata Poir. . . . 126
tomentella Lem. . . 143
tomentosa *Sm.* . . . p. 77
trachyphylla *Rau* . . 142
trifoliata Bosc. . . . 126
triphylla *Roxb.* . . . 138
tuguriorum *Willd.* . . 139
turbinata *Ait.* . . . 73
turbinata Vill. . . . 37
turgida Pers. . . . 15

varians Pohl. . . . 64
velutina *Clairv.* . . 140
villosa *Linn.* . . . 74
villosa Du Roi . . . 77
villosa Vill. 77
villosa Pall. 88
villosa minuta Rau . 77
viminea 49
virginiana Du Roi . 23
virginiana Mill. . . 26
virginiana Herm. . . 42
umbellata Leys. . . 99
umbellata Leers . . 87
unguiculata Desf. . . 64
urbica Lem. 143
usitatissima Gat. . . 81

Woodsii 21

xanthina 132

APPENDIX.

When this work was commenced I intended to leave entirely out of my consideration the innumerable double Roses of the gardens. And this for two reasons; they are more properly in the province of the cultivator than of the botanist; and it is well known that Mr. Sabine has been studying them for many years with a view to publishing the result of his observations in the Transactions of the Horticultural Society. Nevertheless, by the persuasion of some of my friends, I have been induced to alter my original intention, and to add a sketch of a methodical arrangement of the chief remarkable varieties, for the use of florists, till Mr. Sabine's more extensive observations shall appear.

The names I believe are such as are generally employed in the principal nurseries near London. They are all referable to R. gallica, R. parvifolia, R. centifolia, R. damascena, R. alba, and their varieties.

Rosa gallica.

Aimable beauté.
Atlas.

Belle Aurore.
Belle carmosie.
Belle pourpre.
Belle violette.
Bijou.
Blue and purple.
Blue purple.
Blush hundred-leaved.
Bright purple.
Brunette.

Carmine brillante.
Chancellor.
Couleur de feu.

Dark marbled.
Dark violet.
Delicious.
Dingy.
Double velvet.
Double marbled.

Dutch tree.
Dutch hundred-leaved.

Early Ranunculus.

Favourite purple.
Fiery.
Flanders.

Giant.
Goliah.
Granaat Appel.
Grand purple.

Infernal.
Italian.

La grande belle pourpre.
Leyden.
Light purple.
Lisbon.
L'ombre agréable.
L'ombre superbe.

Maiden.
Malabar.
Mignonne.
Mignonne, striped.
———— incised.
———— blush.
Mirabelle.
Montaubon.
Morocco.
Mundi.

Nonsuch.

Officinal.
Ornement de parade.

Pæstana.
Perruque.
Petitte hundred-leaved.
Plicate.
Pourpre charmante.
Pompadour.
Princess.
Prince William the Fifth.
Pyramidal.

Queen.

Red and violet.
Royal purple.
Royal virgin.

Saint John's.
Shell.
Single velvet.
Singleton's hundred-leaved.
Spanish.
Stadtholder.

Triumphant.
Tuscany.

Velours pourpre.
Violette et rouge.

R. parvifolia.

Burgundy.

R. centifolia.

Aurora.

Beauté suprème.
Blandford.
Black mottled.
Blue.
Blush royal.
Blush cabbage.
Bouquet rouge royale.
Bright crumpled.
Brussels.
Burning coal.

Cardinal.
Carmine.

Cherry.
Cluster.
Cupid.

Dragon.

Early hundred-leaved.
Elysian.
Emperor.

Grand cremois.
Grand marbled.

Imperial blush.
Juno.

King.

Lurid.

Majorca.
Malta.
Mignonne, scarlet.
———- crimson.
———- purple.
———- favourite.
———- red.
Mottled purple.

Neapolitan.
Nonpareil.

One-sided.

Paragon.
Persian.
Pluto.
Poppy.
Portland.
Pourpre aimable.
——— favourite.
——— violette.
Prolific.
Proserpine.
Provins, single.
———- common.
———- cabbage.
Provins, blush cabbage.
———- scarlet.
———- Childing's.
———- blush.
———- white.
———- Shailer's.
———- damask.
———- dwarf.
———- invincible.
———- Dutch.
———- imperial.
———- royal.

Rouge superbe.
Royal red.

Sanspareil.
Siren.
Spong's.
Striped nosegay.
Superb carmine.
——— red.
Surpassante.

Trafalgar.

Versailles.

R. centifolia muscosa.

Single moss.
Double moss.
Double white moss.

R. centifolia pomponia.

De Meaux.
De Rheims.
Dwarf Bagshot.

Pompone.
Proliferous Pompone.

St. Francis.

R. damascena.

Blush Belgic.
——- monthly.
——- damask.

Early blush.

Fringed.
Four seasons.

Great royal.
Grand monarque.

Incomparable.
Imperial blush.

Lesser Belgic.

Pale cluster.

Red damask.
—— monthly.

Red Belgic.
Rouge Agathe.

White monthly.

York and Lancaster.

Zealand.

R. alba.

Celestial.

De Belgique.

Full double white.

Great maiden's blush.

Moraga la favorite.

Semidouble white.
Spineless virgin

THE END.

S. Gosnell, Printer, Little Queen Street, London.

MENS AUGUSTISSIMA TUTISSIMA